500 mA, ultra-low power consumption, high PSRR, LDO

1. Description

The FLD6202 series is an LDO designed with CMOS process, featuring 500mA output current and high PSRR. The ultra-low quiescent current of only 0.5μA makes it ideal for handheld and battery-powered applications.

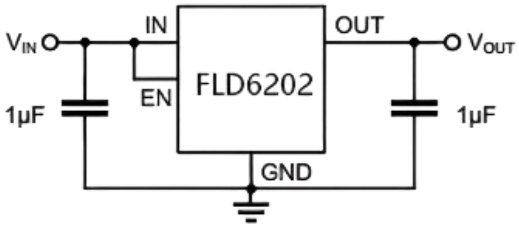
The FLD6202 operates stably with 1μF ceramic capacitors on both input and output. Additional key features include overcurrent protection, short-circuit protection, and OTP. The FLD6202 is available in SOT23-3, SOT23-5, DFN1x1-4L ,SOT-353 packages.

2. Features

- Input Voltage Range:2.2V to 7.0V
- Output Voltage Range:1.2V to 5.0V
- Output Voltage Accuracy:±1.5%
- Dropout Voltage:120mV@100mA,V_{OUT}=3.3V
- PSRR:85dB@1kHz
- Ultra-Low Quiescent Current:0.5μA(TYP.)
- Fast Load Transient Response
- Start-Up Output Overcharge Prevention Circuit with No-Load Residual Charge
- Output Discharge Resistor:60Ω
- Packages：SOT23-3, SOT23-5, DFN1x1-4L,SOT-353

3. Applications

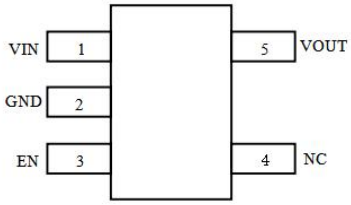
- Wearable Devices
- Battery-Powered Devices
- IoT Devices
- Smart Door Locks



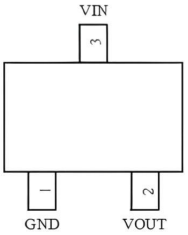
4.Order Information

Part Number	Output Voltage (V)	Package Description	Ordering Code	Packing Quantity
FLD6202-1.2	1.2	SOT23-3	FLD6202-SBA12CT	Tape and Reel,3000
	1.2	SOT23-5	FLD6202-SCA12CT	Tape and Reel,3000
	1.2	SOT-353	FLD6202-SOG12CT	Tape and Reel,3000
	1.2	DFN1x1-4L	FLD6202-DFA12CT	Tape and Reel,10000
FLD6202-1.5	1.5	SOT23-3	FLD6202-SBA15CT	Tape and Reel,3000
	1.5	SOT23-5	FLD6202-SCA15CT	Tape and Reel,3000
	1.5	SOT-353	FLD6202-SOG15CT	Tape and Reel,3000
	1.5	DFN1x1-4L	FLD6202-DFA15CT	Tape and Reel,10000
FLD6202-1.8	1.8	SOT23-3	FLD6202-SBA18CT	Tape and Reel,3000
	1.8	SOT23-5	FLD6202-SCA18CT	Tape and Reel,3000
	1.8	SOT-353	FLD6202-SOG18CT	Tape and Reel,3000
	1.8	DFN1x1-4L	FLD6202-DFA18CT	Tape and Reel,10000
FLD6202-2.5	2.5	SOT23-3	FLD6202-SBA25CT	Tape and Reel,3000
	2.5	SOT23-5	FLD6202-SCA25CT	Tape and Reel,3000
	2.5	SOT-353	FLD6202-SOG25CT	Tape and Reel,3000
	2.5	DFN1x1-4L	FLD6202-DFA25CT	Tape and Reel,10000
FLD6202-2.8	2.8	SOT23-3	FLD6202-SBA28CT	Tape and Reel,3000
	2.8	SOT23-5	FLD6202-SCA28CT	Tape and Reel,3000
	2.8	SOT-353	FLD6202-SOG28CT	Tape and Reel,3000
	2.8	DFN1x1-4L	FLD6202-DFA28CT	Tape and Reel,10000
FLD6202-3.0	3.0	SOT23-3	FLD6202-SBA30CT	Tape and Reel,3000
	3.0	SOT23-5	FLD6202-SCA30CT	Tape and Reel,3000
	3.0	SOT-353	FLD6202-SOG30CT	Tape and Reel,3000
	3.0	DFN1x1-4L	FLD6202-DFA30CT	Tape and Reel,10000
FLD6202-3.3	3.3	SOT23-3	FLD6202-SBA33CT	Tape and Reel,3000
	3.3	SOT23-5	FLD6202-SCA33CT	Tape and Reel,3000
	3.3	SOT-353	FLD6202-SOG33CT	Tape and Reel,3000
	3.3	DFN1x1-4L	FLD6202-DFA33CT	Tape and Reel,10000

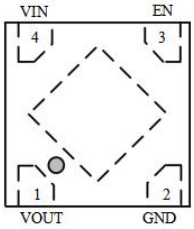
5. Pin Configuration and Functions



SOT23-5/SOT-353



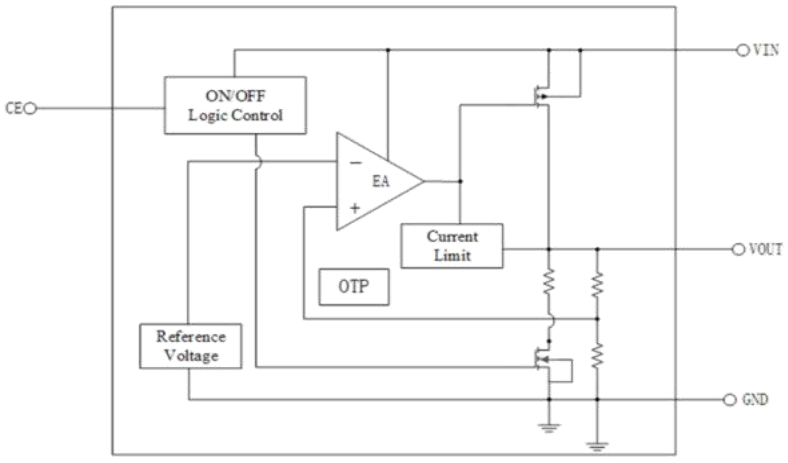
SOT23-3



DFN1X1-4

Pin Number					I/O	Description
Name	SOT-23-5	SOT-23-3	SOT-353	DFN1x1-4L		
VIN	1	3	1	4	-	Voltage Input
GND	2	1	2	2	-	Ground
EN	3	-	3	3	I	Enable Control, Active High
NC	4	-	4	-	-	No Connect
VOUT	5	2	5	1	O	Voltage Output
NC	-	-	-	-	-	No Connect

6.Functional block diagram



7. Absolute Maximum Ratings

Description		Range	Unit
Supply Voltage （V_{IN}）		9.0	V
Output Current （I_{OUT}）		0.5	A
Output Voltage （V_{OUT}）		GND-0.3 ~ V_{IN}+0.3	V
Storage Temperature Range		-65 ~ +150	°C
Junction Temperature		150	°C
Lead Temperature (10s)		260	°C
ESD (Electrostatic Discharge)	HBM(Human Body Mode)	±2000	V

8. Recommended Operating Conditions

Description	Range	Unit
Operating Junction Temperature	-40 ~ 125	°C
Operating Ambient Temperature	-40 ~ 85	°C
EN Voltage	0 ~ V_{IN}	V
Supply Voltage	2.2 ~ 7.0	V
Continuous Output Current	0 ~ 0.5	A

9.ESD Warning



Failure to follow proper ESD handling procedures and installation precautions may damage the device.
ESD damage can range from minor performance degradation to complete device failure. Precision devices are particularly susceptible to damage because very slight parametric changes may cause the device to deviate from its published specifications.

10.Electrical Characteristics

FLD6202-1.2 Electrical Characteristics

(V_{IN} = 2.2V, V_{EN} = V_{IN}, C_{IN} = C_{OUT} = 1μF, T_A = 25°C, unless otherwise noted.)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Voltage	V_{IN}	-	2.2	-	7.0	V
Output Voltage Accuracy		I_{OUT}=10mA	-1.5	-	+1.5	%VOUT
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	V_{IN}=(V_{OUT}+1V)to 7V,I_{OUT}=1mA	-	0.05	-	%/V
Load Regulation	ΔV_{OUT}	I_{OUT}=1mA to 100mA	-	7	-	mV
Output Current	I_{LOAD}	VIN = 2.5V	0	-	350	mA
Maximum Output Current	I_{LOAD_MAX}	-	250	-	-	mA
Quiescent Current	I_Q	V_{EN}=0V	-	0.01	0.1	μA
		V_{EN}=V_{IN}=V_{OUT}+1V,I_{OUT}=0mA	-	0.5	-	μA
Dropout Voltage	V_{DROP}	I_{OUT}=200mA	-	740	-	mV
Power Supply Rejection Ratio	PSRR	f=1kHz,I_{OUT}=10mA	-	80	-	dB
		f=10kHz,I_{OUT}=100mA	-	50	-	dB
EN Input High Voltage	V_{ENH}	V_{IN}=2.2V to 7V,V_{EN} rising	1.2	-	-	V
EN Input Low Voltage	V_{ENL}	V_{IN}=2.2V to 7V,V_{EN} falling	-	-	0.4	V
Output Auto-Discharge Resistor	$R_{discharge}$	V_{EN}=0V	-	60	-	Ω
Short-Circuit Current	I_{short}	-	-	40	-	mA
Thermal Shutdown Temperature	T_{SD}	V_{IN}=V_{OUT}+0.6V,I_{LOAD}=50mA	-	155	-	℃
Thermal Shutdown Hysteresis	T_{SDHYS}		-	30	-	℃

Note:

1. The dropout voltage is defined as V_{IN} - V_{OUT}, when V_{OUT} =98%*$V_{OUT(NOM)}$.

2. Guaranteed by design and characterization. not a FT item.

FLD6202-1.5 Electrical Characteristics

(V_{IN} = V_{OUT}+1V, V_{EN} = V_{IN}, C_{IN} = C_{OUT} = 1μF, T_A = 25°C, unless otherwise noted.）

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Voltage	V_{IN}	-	2.2	-	7.0	V
Output Voltage Accuracy		I_{OUT}=10mA	-1.5	-	+1.5	%VOUT
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	V_{IN}=(V_{OUT}+1V)to 7V,I_{OUT}=1mA	-	0.05	-	%/V
Load Regulation	ΔV_{OUT}	I_{OUT}=1mA to 100mA	-	7	-	mV
Output Current	I_{LOAD}	VIN > 3V	0	-	500	mA
Maximum Output Current	I_{LOAD_MAX}	-	250	-	-	mA
Quiescent Current	I_Q	V_{EN}=0V	-	0.01	0.1	μA
		V_{EN}=V_{IN}=V_{OUT}+1V,I_{OUT}=0mA	-	0.5	-	μA
Dropout Voltage	V_{DROP}	I_{OUT}=200mA	-	520	-	mV
Power Supply Rejection Ratio	PSRR	f=1kHz,I_{OUT}=10mA	-	95	-	dB
		f=10kHz,I_{OUT}=100mA	-	60	-	dB
EN Input High Voltage	V_{ENH}	V_{IN}=2.2V to 7V,V_{EN} rising	1.2	-	-	V
EN Input Low Voltage	V_{ENL}	V_{IN}=2.2V to 7V,V_{EN} falling	-	-	0.4	V
Output Auto-Discharge Resistor	$R_{discharge}$	V_{EN}=0V	-	70	-	Ω
Short-Circuit Current	I_{short}	-	-	40	-	mA
Thermal Shutdown Temperature	T_{SD}	V_{IN}=V_{OUT}+0.6V,I_{LOAD}=50mA	-	155	-	℃
Thermal Shutdown Hysteresis	T_{SDHYS}		-	30	-	℃

Note:

1. The dropout voltage is defined as V_{IN} - V_{OUT}, when V_{OUT} =98%*$V_{OUT(NOM)}$.

2. Guaranteed by design and characterization. not a FT item.

FLD6202-1.8 Electrical Characteristics

(V_{IN} = V_{OUT}+1V, V_{EN} = V_{IN}, C_{IN} = C_{OUT} = 1μF, T_A = 25°C, unless otherwise noted.）

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Voltage	V_{IN}	-	2.2	-	7.0	V
Output Voltage Accuracy		I_{OUT}=10mA	-1.5	-	+1.5	%VOUT
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	V_{IN}=(V_{OUT}+1V)to 7V,I_{OUT}=1mA	-	0.05	-	%/V
Load Regulation	ΔV_{OUT}	I_{OUT}=1mA to 100mA	-	7	-	mV
Output Current	I_{LOAD}	VIN > 3V	0	-	500	mA
Maximum Output Current	I_{LOAD_MAX}	-	400	-	-	mA
Quiescent Current	I_Q	V_{EN}=0V	-	0.01	0.1	μA
		V_{EN}=V_{IN}=V_{OUT}+1V,I_{OUT}=0mA	-	0.5	-	μA
Dropout Voltage	V_{DROP}	I_{OUT}=100mA	-	204	-	mV
		I_{OUT}=200mA	-	410	-	mV
Power Supply Rejection Ratio	PSRR	f=1kHz,I_{OUT}=10mA	-	90	-	dB
		f=10kHz,I_{OUT}=100mA	-	60	-	dB
EN Input High Voltage	V_{ENH}	V_{IN}=2.2V to 7V,V_{EN} rising	1.2	-	-	V
EN Input Low Voltage	V_{ENL}	V_{IN}=2.2V to 7V,V_{EN} falling	-	-	0.4	V
Output Auto-Discharge Resistor	$R_{discharge}$	V_{EN}=0V	-	70	-	Ω
Short-Circuit Current	I_{short}	-	-	50	-	mA
Thermal Shutdown Temperature	T_{SD}	V_{IN}=V_{OUT}+0.6V,I_{LOAD}=50mA	-	155	-	℃
Thermal Shutdown Hysteresis	T_{SDHYS}		-	25	-	℃

Note:

1. The dropout voltage is defined as V_{IN} - V_{OUT}, when V_{OUT} =98%*$V_{OUT(NOM)}$.

2. Guaranteed by design and characterization. not a FT item.

FLD6202-2.5 Electrical Characteristics

(V_{IN} = V_{OUT}+1V, V_{EN} = V_{IN}, C_{IN} = C_{OUT} = 1μF, T_A = 25°C, unless otherwise noted.）

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Voltage	V_{IN}	-	2.2	-	7.0	V
Output Voltage Accuracy		I_{OUT}=10mA	-1.5	-	+1.5	%VOUT
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	V_{IN}=(V_{OUT}+1V)to 7V,I_{OUT}=1mA	-	0.05	-	%/V
Load Regulation	ΔV_{OUT}	I_{OUT}=1mA to 100mA	-	7	-	mV
Output Current	I_{LOAD}	VIN > 3V	0	-	500	mA
Maximum Output Current	I_{LOAD_MAX}	-	500	-	-	mA
Quiescent Current	I_Q	V_{EN}=0V	-	0.01	0.1	μA
		V_{EN}=V_{IN}=V_{OUT}+1V,I_{OUT}=0mA	-	0.5	-	μA
Dropout Voltage	V_{DROP}	I_{OUT}=100mA	-	145	-	mV
		I_{OUT}=200mA	-	300	-	mV
Power Supply Rejection Ratio	PSRR	f=1kHz,I_{OUT}=10mA	-	80	-	dB
		f=10kHz,I_{OUT}=100mA	-	58	-	dB
EN Input High Voltage	V_{ENH}	V_{IN}=2.2V to 7V,V_{EN} rising	1.2	-	-	V
EN Input Low Voltage	V_{ENL}	V_{IN}=2.2V to 7V,V_{EN} falling	-	-	0.4	V
Output Auto-Discharge Resistor	$R_{discharge}$	V_{EN}=0V	-	60	-	Ω
Short-Circuit Current	I_{short}	-	-	35	-	mA
Thermal Shutdown Temperature	T_{SD}	V_{IN}=V_{OUT}+0.6V,I_{LOAD}=50mA	-	160	-	℃
Thermal Shutdown Hysteresis	T_{SDHYS}		-	30	-	℃

Note:

1. The dropout voltage is defined as V_{IN} - V_{OUT}, when V_{OUT} =98%*$V_{OUT(NOM)}$.

2. Guaranteed by design and characterization. not a FT item.

FLD6202-2.8 Electrical Characteristics

(V_{IN} = V_{OUT}+1V, V_{EN} = V_{IN}, C_{IN} = C_{OUT} = 1μF, T_A = 25°C, unless otherwise noted.）

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Voltage	V_{IN}	-	2.2	-	7.0	V
Output Voltage Accuracy		I_{OUT}=10mA	-1.5	-	+1.5	%VOUT
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	V_{IN}=(V_{OUT}+1V)to 7V,I_{OUT}=1mA	-	0.05	-	%/V
Load Regulation	ΔV_{OUT}	I_{OUT}=1mA to 100mA	-	7	-	mV
Output Current	I_{LOAD}	VIN > 3V	0	-	500	mA
Maximum Output Current	I_{LOAD_MAX}	-	500	-	-	mA
Quiescent Current	I_Q	V_{EN}=0V	-	0.01	0.1	μA
		V_{EN}=V_{IN}=V_{OUT}+1V,I_{OUT}=0mA	-	0.5	-	μA
Dropout Voltage	V_{DROP}	I_{OUT}=100mA	-	130	-	mV
		I_{OUT}=200mA	-	270	-	mV
Power Supply Rejection Ratio	PSRR	f=1kHz,I_{OUT}=10mA	-	80	-	dB
		f=10kHz,I_{OUT}=100mA	-	60	-	dB
EN Input High Voltage	V_{ENH}	V_{IN}=2.2V to 7V,V_{EN} rising	1.2	-	-	V
EN Input Low Voltage	V_{ENL}	V_{IN}=2.2V to 7V,V_{EN} falling	-	-	0.4	V
Output Auto-Discharge Resistor	$R_{discharge}$	V_{EN}=0V	-	60	-	Ω
Short-Circuit Current	I_{short}	-	-	50	-	mA
Thermal Shutdown Temperature	T_{SD}	V_{IN}=V_{OUT}+0.6V,I_{LOAD}=50mA	-	155	-	℃
Thermal Shutdown Hysteresis	T_{SDHYS}		-	25	-	℃

Note:

1. The dropout voltage is defined as V_{IN} - V_{OUT}, when V_{OUT} =98%*$V_{OUT(NOM)}$.

2. Guaranteed by design and characterization. not a FT item.

FLD6202-3.0 Electrical Characteristics

(V_{IN} = V_{OUT}+1V, V_{EN} = V_{IN}, C_{IN} = C_{OUT} = 1μF, T_A = 25°C, unless otherwise noted.）

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Voltage	V_{IN}	-	2.2	-	7.0	V
Output Voltage Accuracy		I_{OUT}=10mA	-1.5	-	+1.5	%VOUT
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	V_{IN}=(V_{OUT}+1V)to 7V,I_{OUT}=1mA	-	0.05	-	%/V
Load Regulation	ΔV_{OUT}	I_{OUT}=1mA to 100mA	-	7	-	mV
Output Current	I_{LOAD}	VIN > 3V	0	-	500	mA
Maximum Output Current	I_{LOAD_MAX}	-	500	-	-	mA
Quiescent Current	I_Q	V_{EN}=0V	-	0.01	0.1	μA
		V_{EN}=V_{IN}=V_{OUT}+1V,I_{OUT}=0mA	-	0.5	-	μA
Dropout Voltage	V_{DROP}	I_{OUT}=100mA	-	130	-	mV
		I_{OUT}=300mA	-	420	-	mV
Power Supply Rejection Ratio	PSRR	f=1kHz,I_{OUT}=10mA	-	85	-	dB
		f=10kHz,I_{OUT}=100mA	-	60	-	dB
EN Input High Voltage	V_{ENH}	V_{IN}=2.2V to 7V,V_{EN} rising	1.2	-	-	V
EN Input Low Voltage	V_{ENL}	V_{IN}=2.2V to 7V,V_{EN} falling	-	-	0.4	V
Output Auto-Discharge Resistor	$R_{discharge}$	V_{EN}=0V	-	60	-	Ω
Short-Circuit Current	I_{short}	-	-	50	-	mA
Thermal Shutdown Temperature	T_{SD}	V_{IN}=V_{OUT}+0.6V,I_{LOAD}=50mA	-	160	-	℃
Thermal Shutdown Hysteresis	T_{SDHYS}		-	30	-	℃

Note:

1. The dropout voltage is defined as V_{IN} - V_{OUT}, when V_{OUT} =98%*$V_{OUT(NOM)}$.

2. Guaranteed by design and characterization. not a FT item.

FLD6202-3.3 Electrical Characteristics

(V_{IN} = V_{OUT}+1V, V_{EN} = V_{IN}, C_{IN} = C_{OUT} = 1μF, T_A = 25°C, unless otherwise noted.）

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Voltage	V_{IN}	-	2.2	-	7.0	V
Output Voltage Accuracy		I_{OUT}=10mA	-1.5	-	+1.5	%VOUT
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	V_{IN}=(V_{OUT}+1V)to 7V,I_{OUT}=1mA	-	0.05	-	%/V
Load Regulation	ΔV_{OUT}	I_{OUT}=1mA to 100mA	-	7	-	mV
Output Current	I_{LOAD}	VIN > 3V	0	-	500	mA
Maximum Output Current	I_{LOAD_MAX}	-	500	-	-	mA
Quiescent Current	I_Q	V_{EN}=0V	-	0.01	0.1	μA
		V_{EN}=V_{IN}=V_{OUT}+1V,I_{OUT}=0mA	-	0.5	-	μA
Dropout Voltage	V_{DROP}	I_{OUT}=100mA	-	120	-	mV
		I_{OUT}=300mA	-	370	-	mV
Power Supply Rejection Ratio	PSRR	f=1kHz,I_{OUT}=10mA	-	85	-	dB
		f=10kHz,I_{OUT}=100mA	-	60	-	dB
EN Input High Voltage	V_{ENH}	V_{IN}=2.2V to 7V,V_{EN} rising	1.2	-	-	V
EN Input Low Voltage	V_{ENL}	V_{IN}=2.2V to 7V,V_{EN} falling	-	-	0.4	V
Output Auto-Discharge Resistor	$R_{discharge}$	V_{EN}=0V	-	60	-	Ω
Short-Circuit Current	I_{short}	-	-	50	-	mA
Thermal Shutdown Temperature	T_{SD}	V_{IN}=V_{OUT}+0.6V,I_{LOAD}=50mA	-	160	-	℃
Thermal Shutdown Hysteresis	T_{SDHYS}		-	30	-	℃

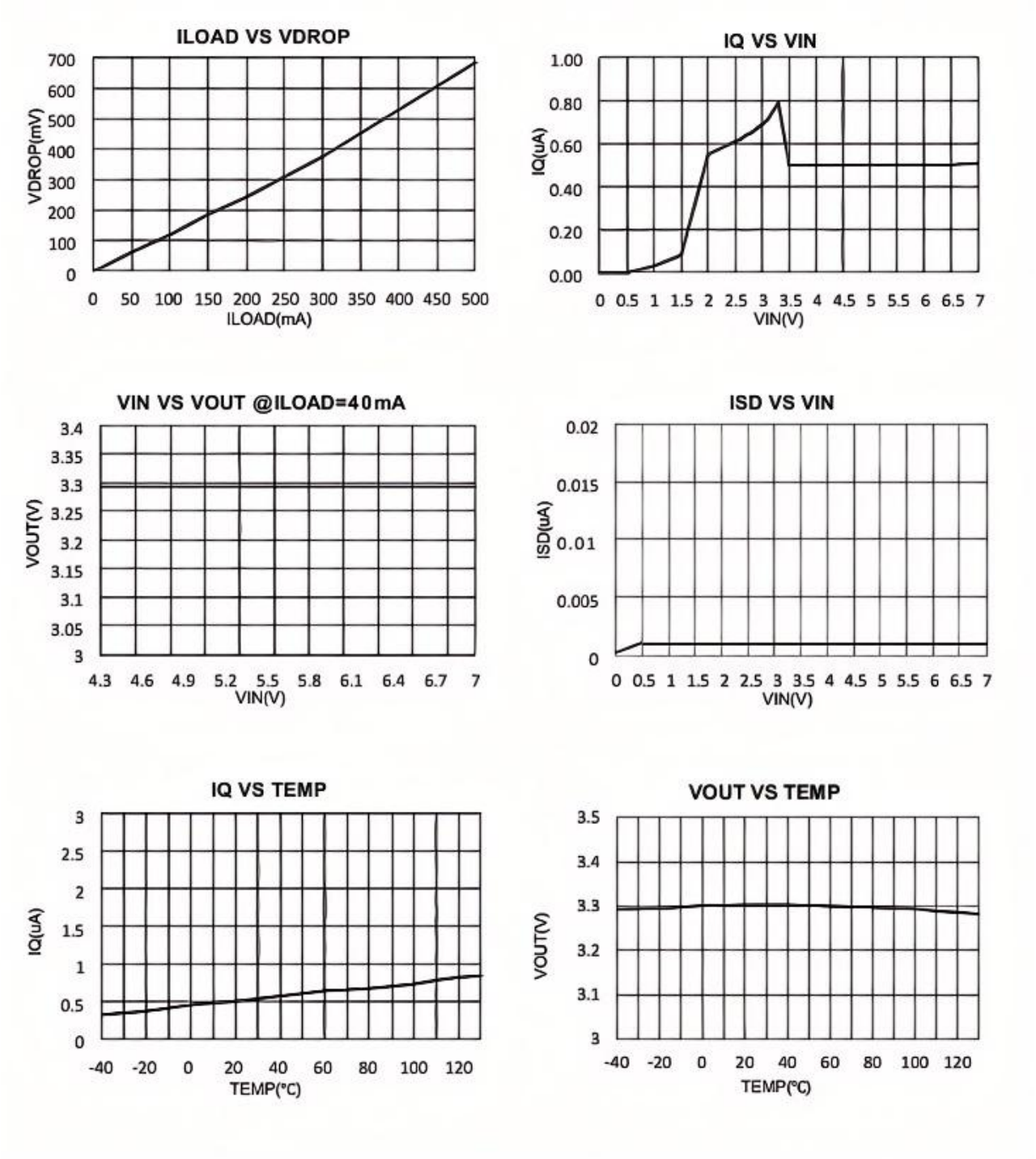
Note:

1. The dropout voltage is defined as V_{IN} - V_{OUT}, when V_{OUT} =98%*$V_{OUT(NOM)}$.

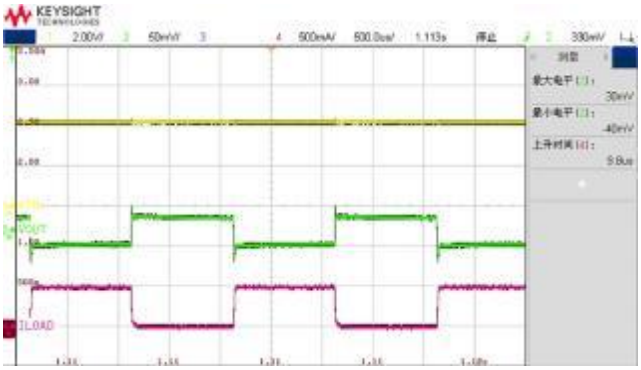
2. Guaranteed by design and characterization. not a FT item.

11.Typical Performance Characteristics

V_{IN} = 4.3V, V_{OUT} = 3.3V,C_{IN} = 1.0uF, C_{OUT} = 1.0uF

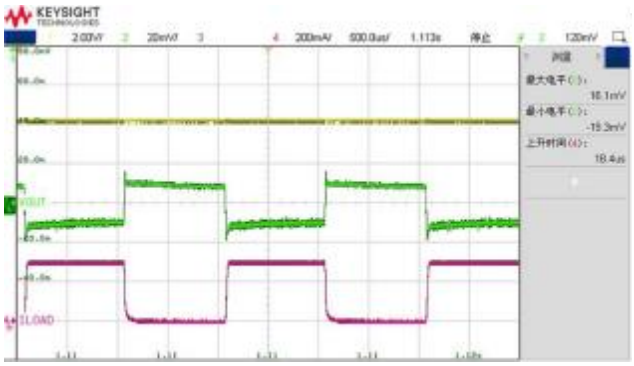


Output Transient Response



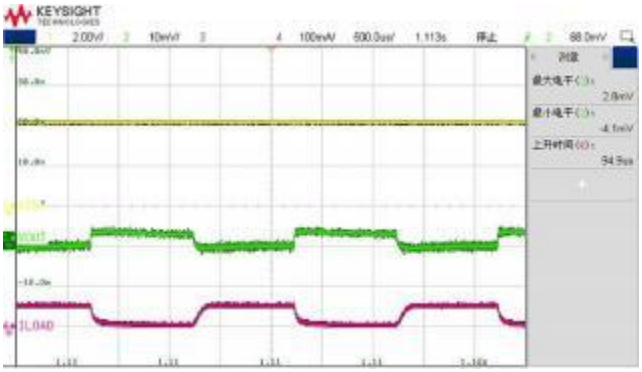
$V_{IN}=V_{OUT}+1V$, $C_{IN}=C_{OUT}=1\mu F$,
$I_{LOAD}=1mA\sim500mA\sim1mA$
CH1:V_{IN} CH2:OUT CH4:I_{OUT}

Output Transient Response



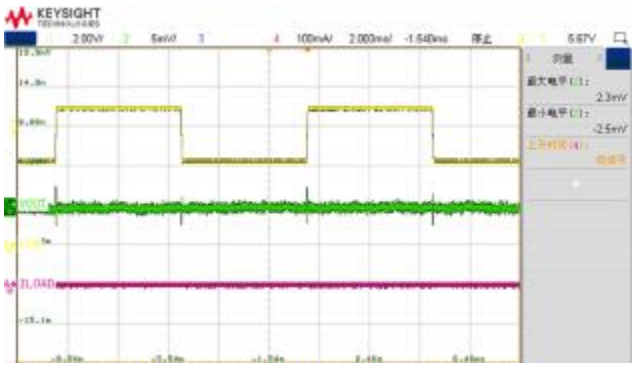
$V_{IN}=V_{OUT}+1V$, $C_{IN}=C_{OUT}=1\mu F$,
$I_{LOAD}=1mA\sim300mA\sim1mA$
CH1:V_{IN} CH2:OUT CH4:I_{OUT}

Output Transient Response



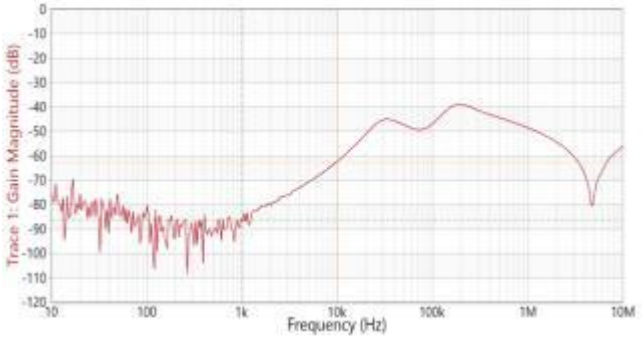
$V_{IN}=V_{OUT}+1V$, $C_{IN}=C_{OUT}=1\mu F$,
$I_{LOAD}=1mA\sim50mA\sim1mA$
CH1:V_{IN} CH2:OUT CH4:I_{OUT}

Output Transient Response



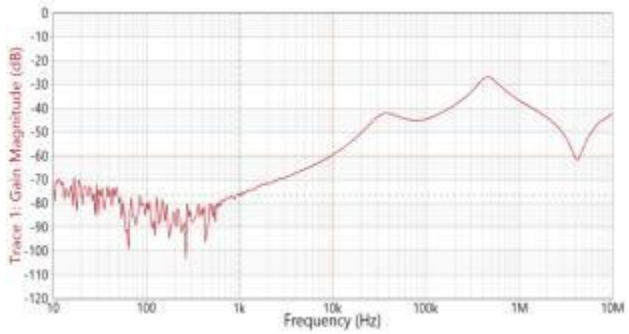
$V_{IN}=V_{OUT}+1V$, $C_{IN}=C_{OUT}=1\mu F$,
$I_{LOAD}=1mA$
CH1:V_{IN} CH2:OUT CH4:I_{OUT}

PSRR vs. Frequency



$V_{IN}=4.3V$, $V_{OUT}=3.3V$, $I_{LOAD}=10mA$,
f=10Hz~10MHz

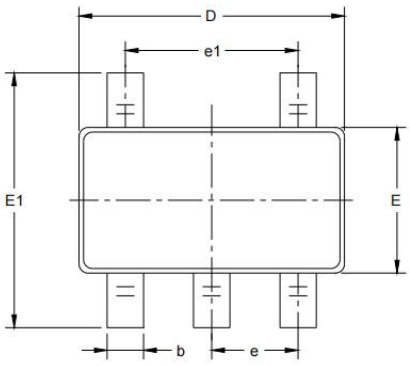
PSRR vs. Frequency

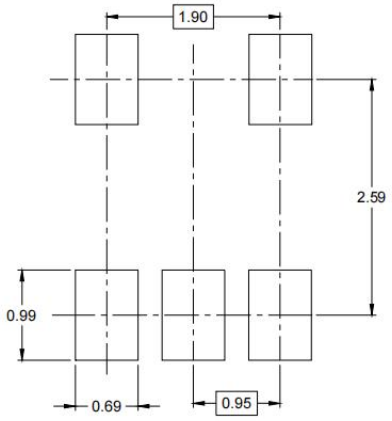


$V_{IN}=4.3V$, $V_{OUT}=3.3V$, $I_{LOAD}=100mA$,
f=10Hz~10MHz

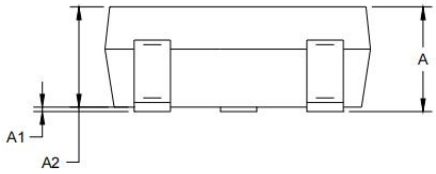
12.Package Information

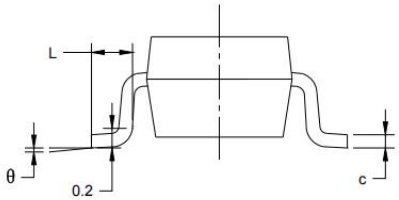
(1) SOT23-5 Package Dimensions:





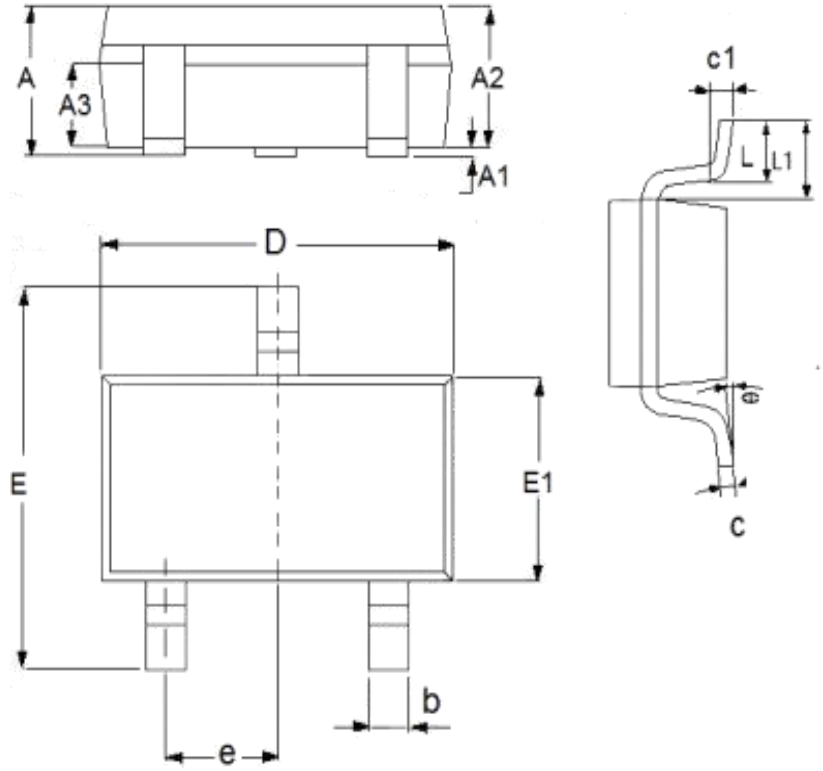
RECOMMENDED LAND PATTERN (Unit: mm)





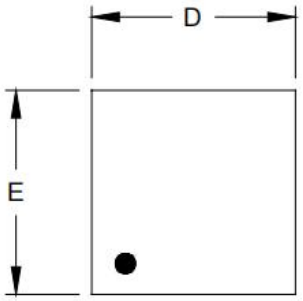
Symbol	Dimensions (mm)		Dimensions (Inch)	
	Min	Max	Min	Max
A	1.05	1.45	0.0413	0.0571
A1	0	0.15	0.0000	0.0059
A2	0.9	1.3	0.0354	0.0512
A3	0.6	0.7	0.0236	0.0276
b	0.25	0.5	0.0098	0.0197
c	0.1	0.25	0.0039	0.0098
D	2.8	3.1	0.1102	0.1220
E	2.6	3.1	0.1023	0.1220
E1	1.5	1.8	0.0591	0.0709
e	0.95(typical.)		0.0374(typical.)	
L	0.25	0.6	0.0098	0.0236
L1	0.59(typical.)		0.0232(typical.)	
θ	0	8°	0.0000	8°
c1	0.2(typical.)		0.0079(typical.)	

(2) SOT23-3 Package Dimensions:

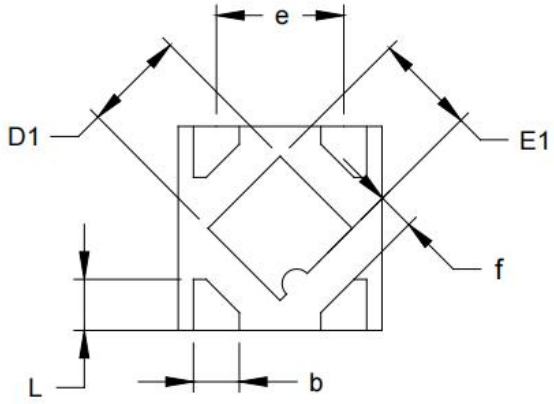


Symbol	Dimensions (mm)		Dimensions (Inch)	
	Min	Max	Min	Max
A	1.05	1.45	0.0413	0.0571
A1	0	0.15	0.0000	0.0059
A2	0.9	1.3	0.0354	0.0512
A3	0.6	0.7	0.0236	0.0276
b	0.25	0.5	0.0098	0.0197
c	0.1	0.25	0.0039	0.0098
D	2.8	3.1	0.1102	0.1220
E	2.6	3.1	0.1023	0.1220
E1	1.5	1.8	0.0591	0.0709
e	0.95(typical.)		0.0374(typical.)	
L	0.25	0.6	0.0098	0.0236
L1	0.59(typical.)		0.0232(typical.)	
θ	0	8°	0.0000	8°
c1	0.2(typical.)		0.0079(typical.)	

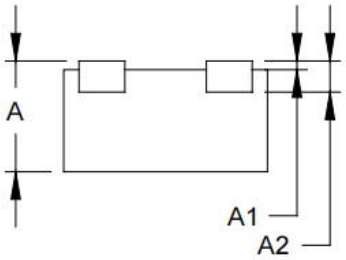
(3) DFN1x1-4L Package Dimensions:



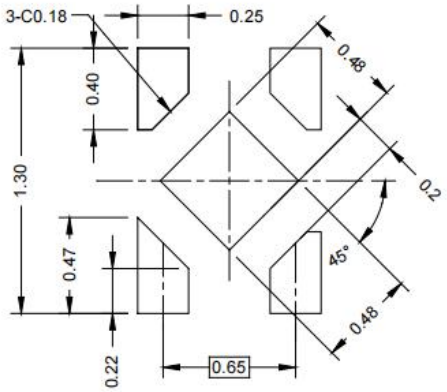
TOP VIEW



BOTTOM VIEW



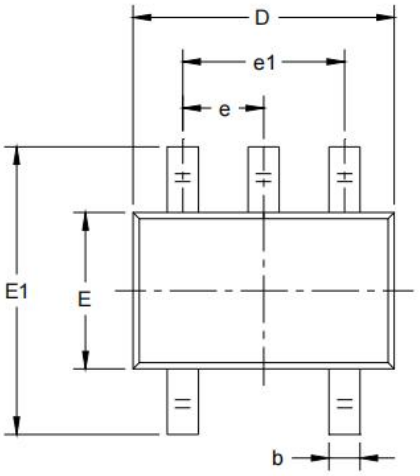
SIDE VIEW

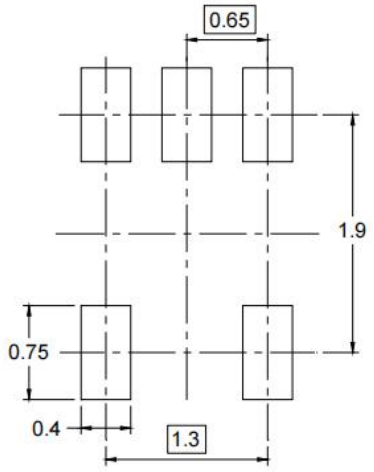


RECOMMENDED LAND PATTERN (Unit: mm)

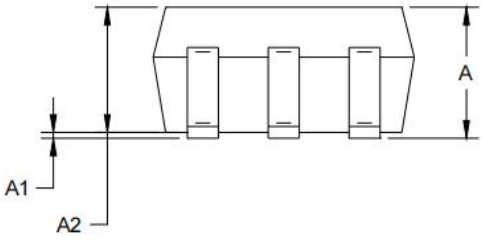
Symbol	Dimensions In Millimeters		
	MIN	MOD	MAX
A	0.500	0.550	0.600
A1	0.000		0.050
A2		0.152 REF	
D	0.950	1.000	1.050
D1	0.450	0.500	0.550
E	0.950	1.000	1.050
E1	0.450	0.500	0.550
b	0.175	0.225	0.275
e		0.625 BSC	
f		0.195 REF	
L	0.200	0.250	0.300

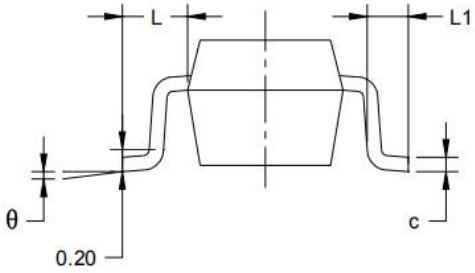
(4) SOT-353 Package Dimensions:





RECOMMENDED LAND PATTERN (Unit: mm)





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.65 TYP		0.026 TYP	
e1	1.300 BSC		0.051 BSC	
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

13.Important Notice And Disclaimer

- We reserve the right to change the instruction manual without prior notice.
- Any semiconductor product has a certain possibility of failure or malfunction under specific conditions. The buyer is responsible for complying with safety standards and taking safety measures when using our products for system design and overall manufacturing to avoid potential failure risks that may cause personal injury or property damage.
- The improvement of product quality is endless, our company will be dedicated to provide customers with better products.

13.Version Modification Record

Version Number	Revision
first edition	
V1.0	1.Update packages