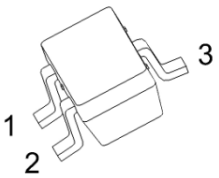
SOT-23-3L Plastic-Encapsulate MOSFETS

CJK2333 P-channel MOSFET

$V_{(BR)DSS}$	$R_{DS(on)}$MAX	I_D
-12V	28mΩ@-4.5V	-6A
	32mΩ@-3.7V	
	40mΩ@-2.5V	
	63mΩ@-1.8V	
	150mΩ@-1.5V	

SOT-23-3L



1. GATE
2. SOURCE
3. DRAIN

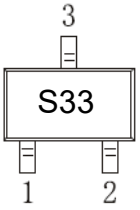
FEATURE

- TrenchFET Power MOSFET
- Excellent $R_{DS(on)}$ and Low Gate Charge

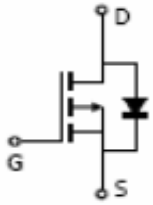
APPLICATION

- DC/DC Converter
- Load Switch for Portable Devices
- Battery Switch

MARKING



Equivalent Circuit



ABSOLUTE MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-12	V
Gate-Source Voltage	V_{GS}	±8	V
Continuous Drain Current	I_D	-6	A
Pulsed Drain Current (t=300μs)	I_{DM}	-20	A
Power Dissipation	P_D	0.4	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	312.5	℃/W
Operation Junction and Storage Temperature Rangee	T_J,T_{STG}	-55~ +150	℃

MOSFET ELECTRICAL CHARACTERISTICS

T_a=25℃ unless otherwise specified

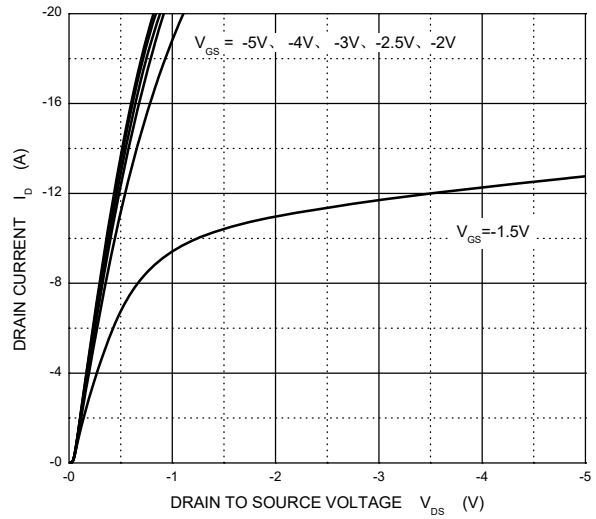
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =-250μA	-12			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =-12V,V_{GS} = 0V			-1	μA
Gate-body leakage current	I_{GSS}	V_{GS} =±8V, V_{DS} = 0V			±0.1	μA
Gate threshold voltage (note 1)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =-250μA	-0.4		-1	V
Drain-source on-resistance (note 1)	$R_{DS(on)}$	V_{GS} =-4.5V, I_D =-5A		22	28	mΩ
		V_{GS} =-3.7V, I_D =-4.6A		23	32	
		V_{GS} =-2.5V, I_D =-4.3A		26	40	
		V_{GS} =-1.8V, I_D =-1A		34	63	
		V_{GS} =-1.5V, I_D =-0.5A		43	150	
Forward tranconductance (note 1)	g_{FS}	V_{DS} =-5V, I_D =-5A		18		S
Dynamic characteristics (note 2)						
Input Capacitance	C_{iss}	V_{DS} =-6V,V_{GS} =0V,f =1MHz		1275		pF
Output Capacitance	C_{oss}			255		pF
Reverse Transfer Capacitance	C_{rss}			236		pF
Gate resistance	R_g	f =1MHz	1.9		19	Ω
Total Gate Charge	Q_g	V_{DS} =-6V,V_{GS} =-4.5V,I_D=-5A		14	21	nC
Gate-Source Charge	Q_{gs}			2.3		nC
Gate-Drain Charge	Q_{gd}			3.6		nC
Turn-on delay time	$t_{d(on)}$	V_{DD}=-6V,V_{GEN}=-4.5V,I_D=-4A R_L=6Ω,R_{GEN}=1Ω		26	40	ns
Turn-on rise time	t_r			24	40	ns
Turn-off delay time	$t_{d(off)}$			45	70	ns
Turn-off fall time	t_f			20	35	ns
Source-Drain Diode characteristics						
Diode forward current	I_S	T_C=25℃			-6	A
Diode pulsed forward current	I_{SM}				-20	A
Diode Forward voltage (note 1)	V_{DS}	V_{GS} =0V, I_S=-4A			-1.2	V
Diode reverse recovery time (note 2)	t_{rr}	I_F=-4A,dI/dt=100A/μs		24	48	ns
Diode reverse recovery charge (note 2)	Q_{rr}			8	16	nC

Notes : 1. Pulse test; pulse width≤300μs, duty cycle≤2%.

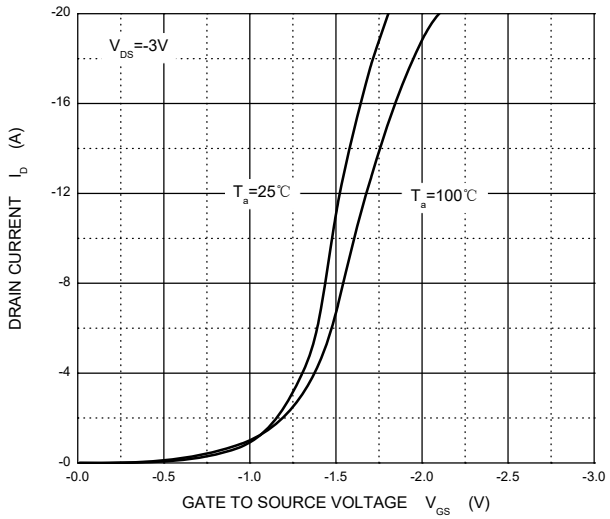
2. Guaranteed by design, not subject to production testing.

Typical Characteristics

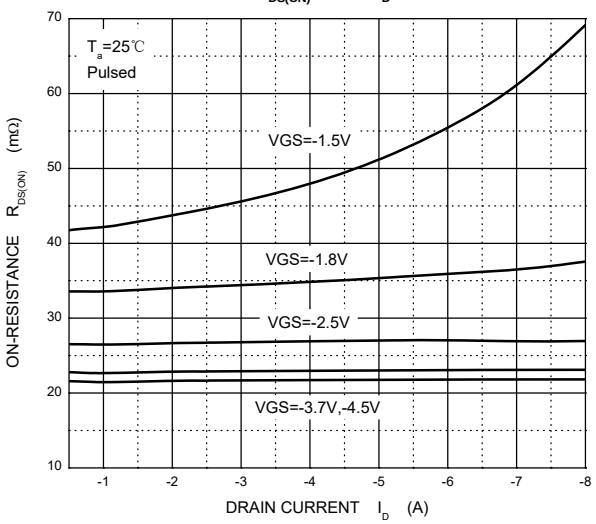
Output Characteristics



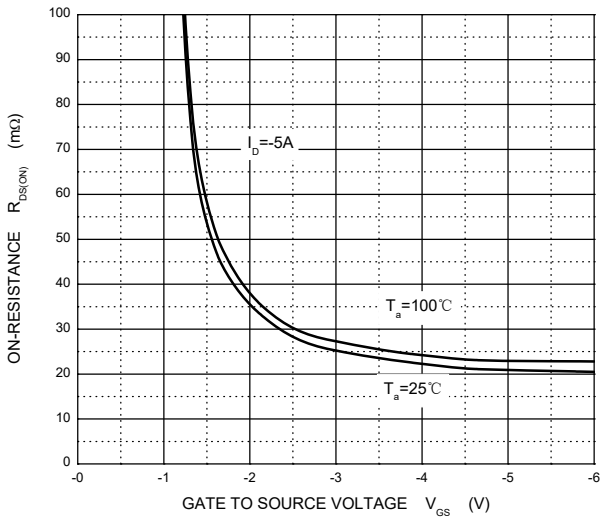
Transfer Characteristics



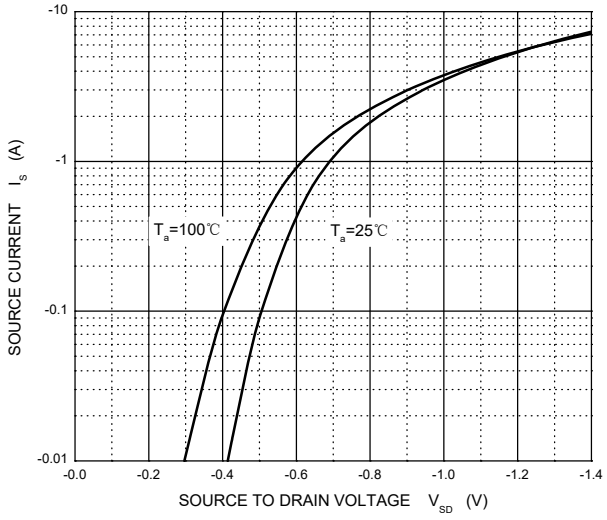
$R_{DS(ON)}$ —— I_D



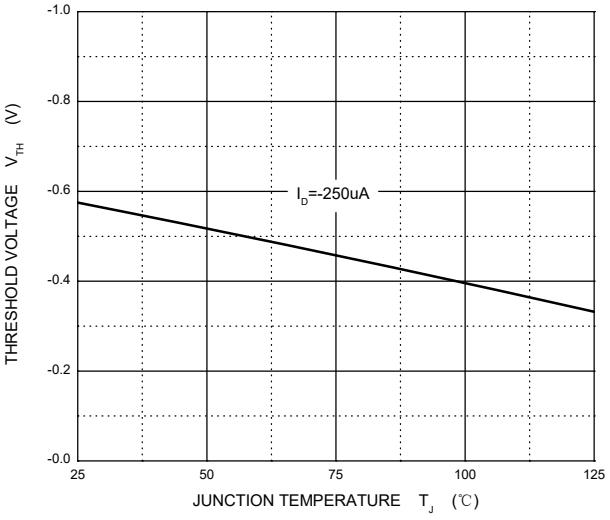
$R_{DS(ON)}$ —— V_{GS}



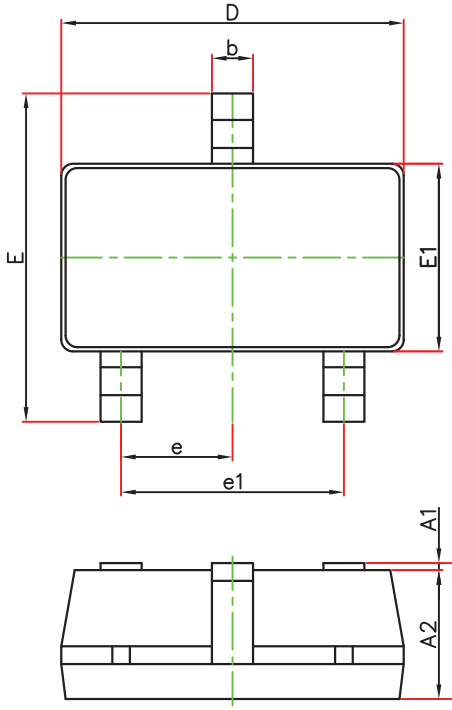
I_S —— V_{SD}

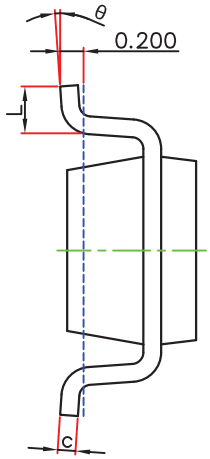


Threshold Voltage



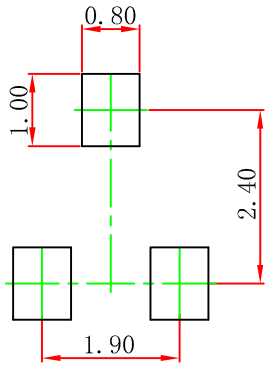
SOT-23-3L Package Outline Dimensions





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

SOT-23-3L Suggested Pad Layout



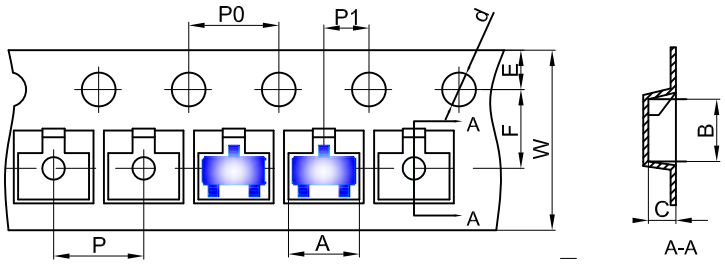
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enhan nts,improvements,corrections or other es without further notice to any product herein. SZCJ does not assume any liability arising out of the application or use of any product described h

SOT-23-3L Tape and Reel

SOT-23-3L Embossed Carrier Tape

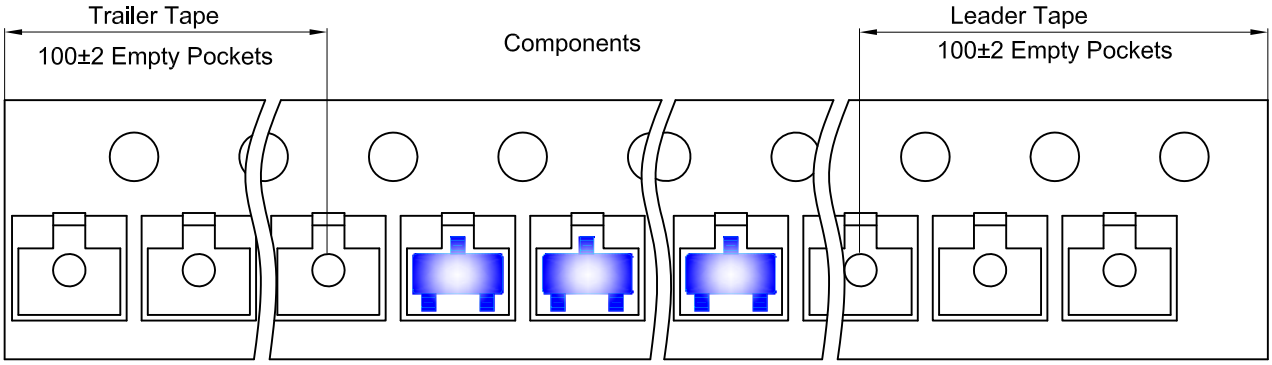


Packaging Description:

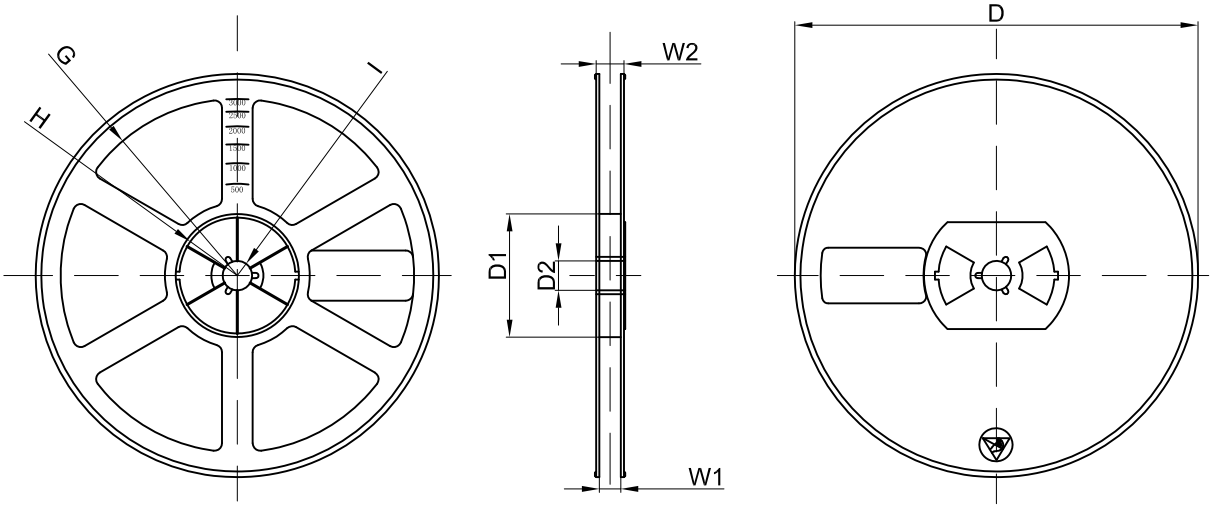
SOT-23-3L parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 18.0cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23-3L	3.18	3.28	1.32	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23-3L Tape Leader and Trailer



SOT-23-3L Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø180.00	60.00	13.00	R78.00	R25.60	R6.50	9.50	13.10

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	30,000 pcs	203×203×195	120,000 pcs	438×438×220	