

**Product Summary**

V <sub>(BR)DSS</sub>	R <sub>DS(on)TYP</sub>	I <sub>D</sub>
15V	8.7mΩ@10V	8A
	9.7mΩ@4.5V	
	10.2mΩ@3.8V	
	12.8mΩ@2.5V	

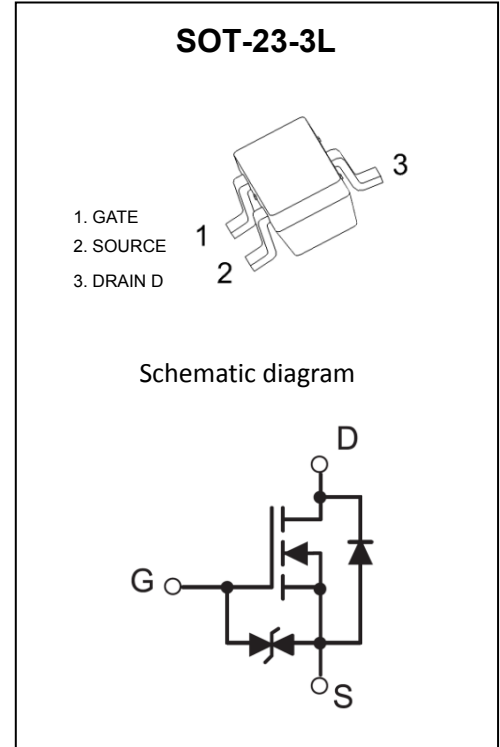
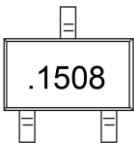
**Feature**

- High dense cell design for extremely low R<sub>DS(ON)</sub>
- Exceptional on-resistance and maximum DC current capability
- ESD Protected Gate

**Application**

- Load/Power Switching
- Interfacing Switching

**MARKING:**



**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V <sub>DS</sub>	15	V
Gate-Source Voltage	V <sub>GS</sub>	±12	V
Continuous Drain Current	I <sub>D</sub>	8	A
Pulsed Drain Current <sup>1</sup>	I <sub>DM</sub>	24	A
Power Dissipation <sup>2</sup>	P <sub>D</sub>	0.45	W
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	277	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55~ +150	°C

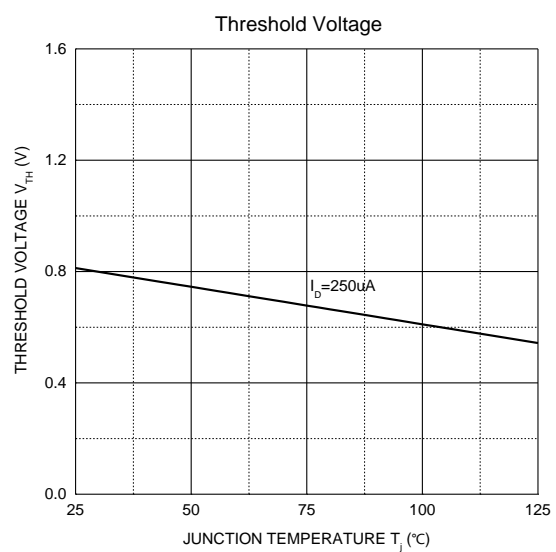
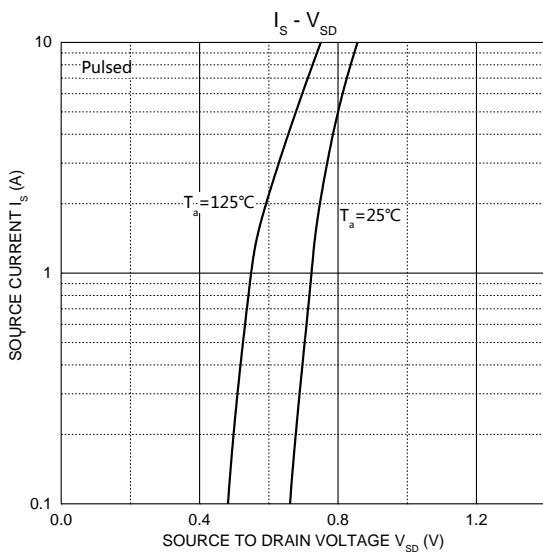
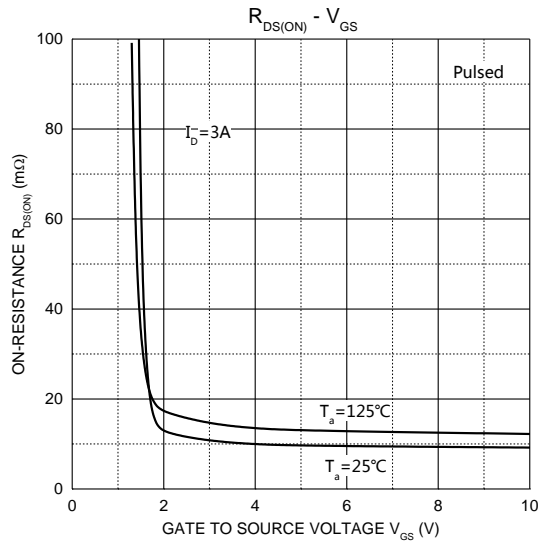
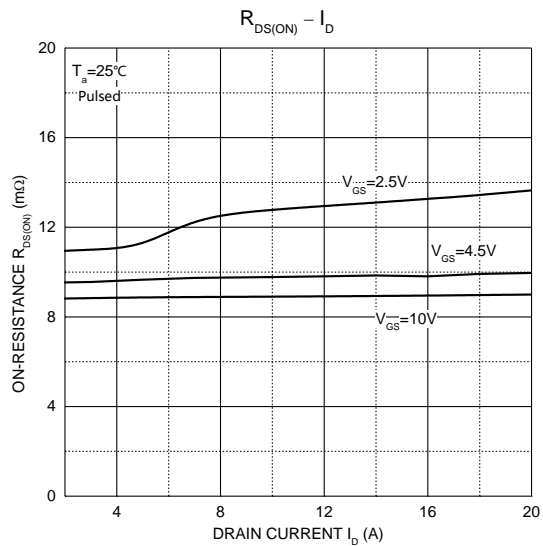
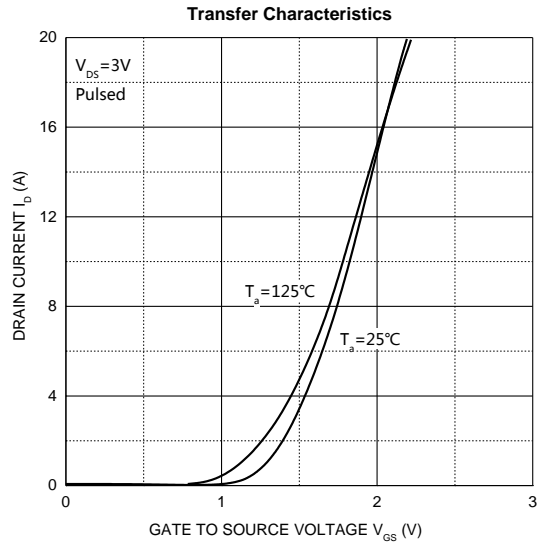
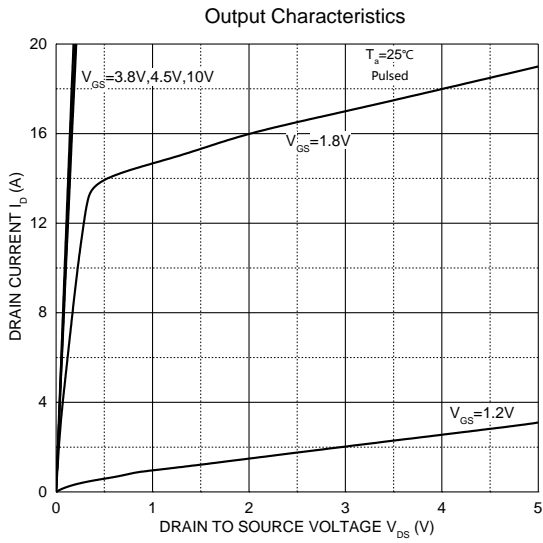
**MOSFET ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
<b>Static Characteristics</b>						
Drain-source breakdown voltage	V <sub>(BR)DSS</sub>	V <sub>GS</sub> = 0V, I <sub>D</sub> = 250μA	15			V
Zero gate voltage drain current	I <sub>DSS</sub>	V <sub>DS</sub> =12V, V <sub>GS</sub> = 0V			1	μA
Gate-body leakage current	I <sub>GSS</sub>	V <sub>GS</sub> =±10V, V <sub>DS</sub> = 0V			±5	μA
Gate threshold voltage <sup>3</sup>	V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250μA	0.5	0.8	1	V
Drain-source on-resistance <sup>3</sup>	R <sub>DS(on)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =3A		8.7	10	mΩ
		V <sub>GS</sub> =4.5V, I <sub>D</sub> =3A		9.7	11	
		V <sub>GS</sub> =3.8V, I <sub>D</sub> =3A		10.2	12	
		V <sub>GS</sub> =2.5V, I <sub>D</sub> =3A		12.8	15	
Forward tranconductance <sup>3</sup>	g <sub>FS</sub>	V <sub>DS</sub> =5V, I <sub>D</sub> =3A		20		S
<b>Dynamic characteristics<sup>4</sup></b>						
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f =1MHz		1800		pF
Output Capacitance	C <sub>oss</sub>			230		
Reverse Transfer Capacitance	C <sub>rss</sub>			200		
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =4.5V, I <sub>D</sub> =3A		17.9		nC
Gate-Source Charge	Q <sub>gs</sub>			1.5		
Gate-Drain Charge	Q <sub>gd</sub>			4.7		
Turn-on delay time	t <sub>d(on)</sub>	V <sub>GS</sub> =10V, V <sub>DS</sub> =10V, R <sub>L</sub> =1.2Ω, R <sub>GEN</sub> =3Ω		2.5		ns
Turn-on rise time	t <sub>r</sub>			7.2		
Turn-off delay time	t <sub>d(off)</sub>			49		
Turn-off fall time	t <sub>f</sub>			10.8		
<b>Source-Drain Diode characteristics</b>						
Diode Forward voltage <sup>3</sup>	V <sub>DS</sub>	V <sub>GS</sub> =0V, I <sub>S</sub> =2A		0.75	1.2	V

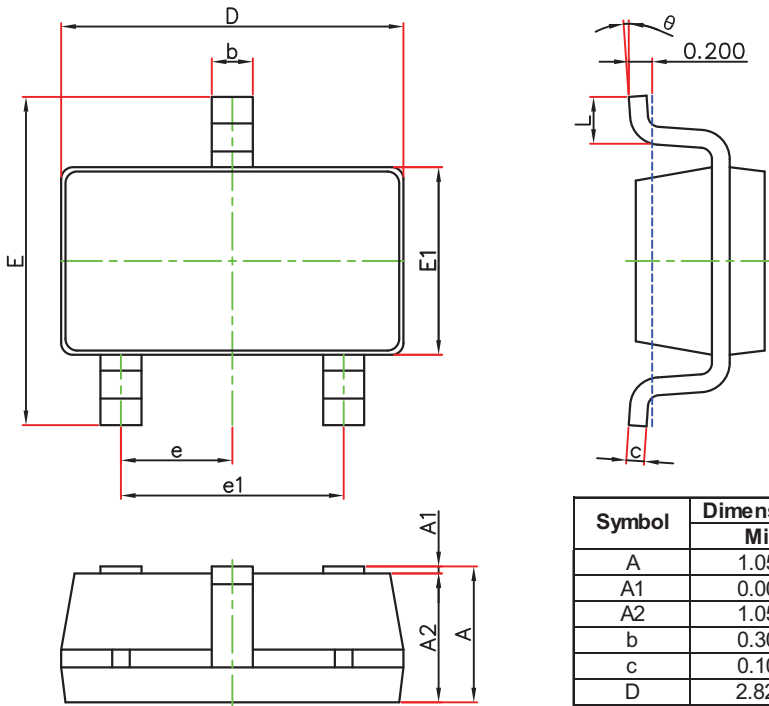
**Notes:**

1. Repetitive Rating: Pulse width limited by maximum junction temperature.
2. This test is performed with no heat sink at T<sub>a</sub>=25°C.
3. Pulse Test: Pulse With ≤300μs, Duty Cycle≤2%.
4. Guaranteed by design, not subject to production testing.

**Typical Electrical and Thermal Characteristics**



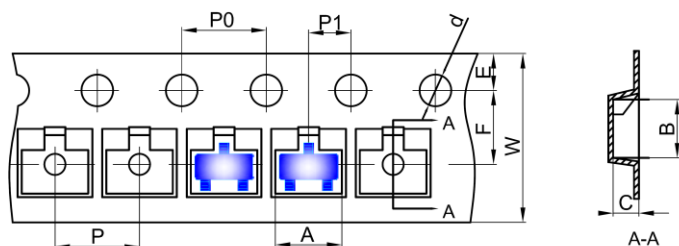
**SOT-23-3L Package Information**



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
$\theta$	0°	8°	0°	8°

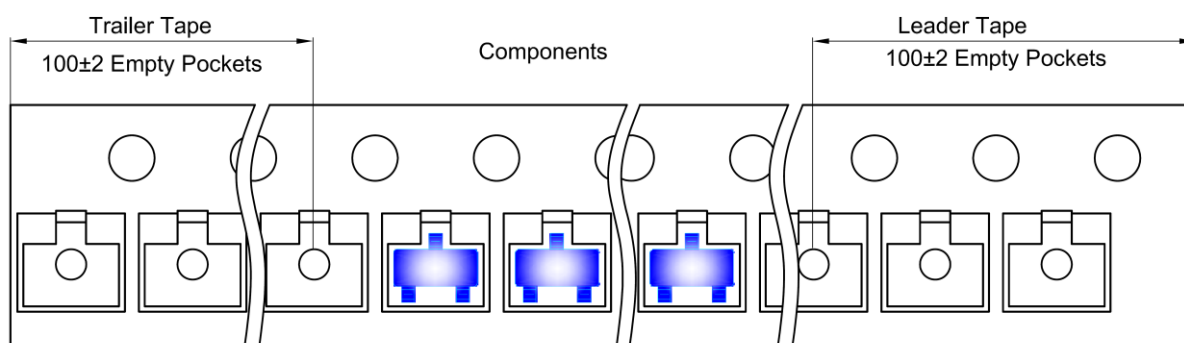
**SOT-23-3L Tape and Reel**

**SOT-23-3L Embossed Carrier Tape**

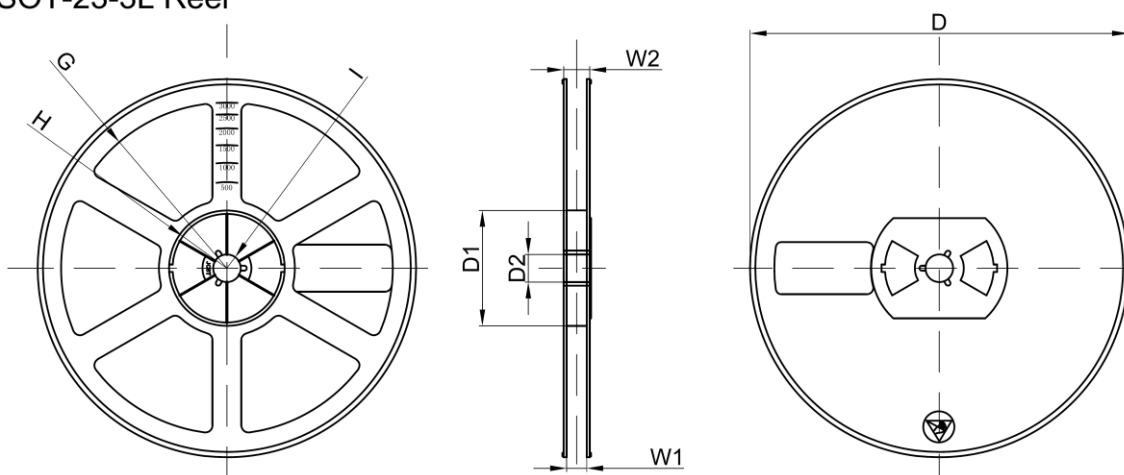


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23-3L	3.18	3.28	1.32	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

**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	

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)