



Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-20V	90m Ω @-4.5V	-1.4A
	115m Ω @-2.5V	
	145m Ω @-1.8V	

Feature

- Leading Trench Technology for Low $R_{DS(on)}$
- Extending Battery Life

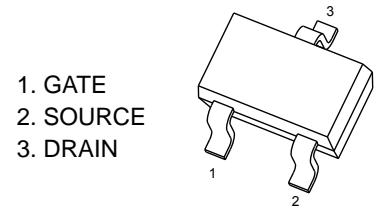
Application

- High Side Load Switch
- Charging Circuit
- Single Cell Battery Applications such as Cell Phones, Digital Cameras ,PDAs, etc

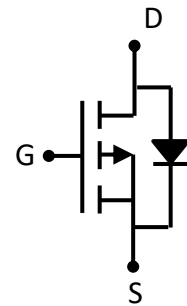
MARKING:



SOT-323



Schematic diagram



ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 8.0	V
Continuous Drain Current	I_D	-1.4	A
Pulsed Drain Current ($t_p=10\mu\text{s}$)	I_{DM}	-3.0	A
Power Dissipation	P_D	0.29	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	431	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$

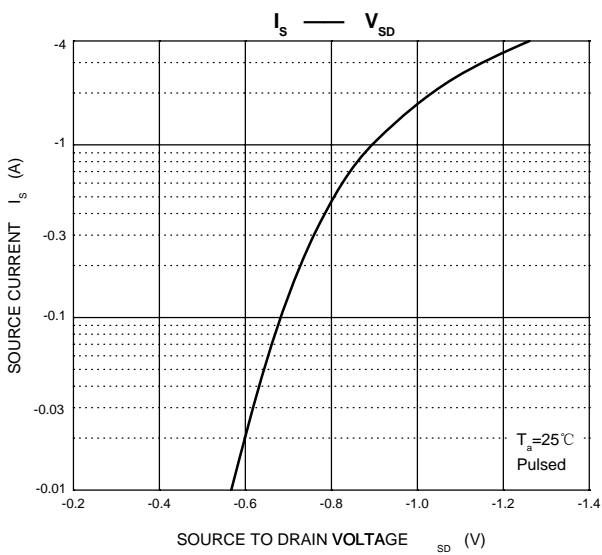
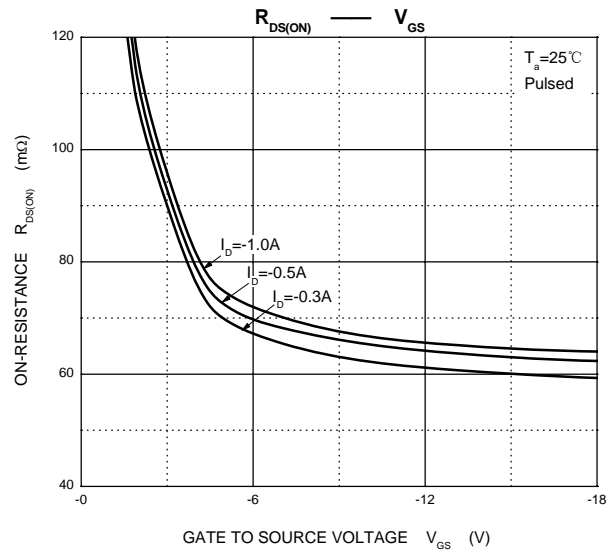
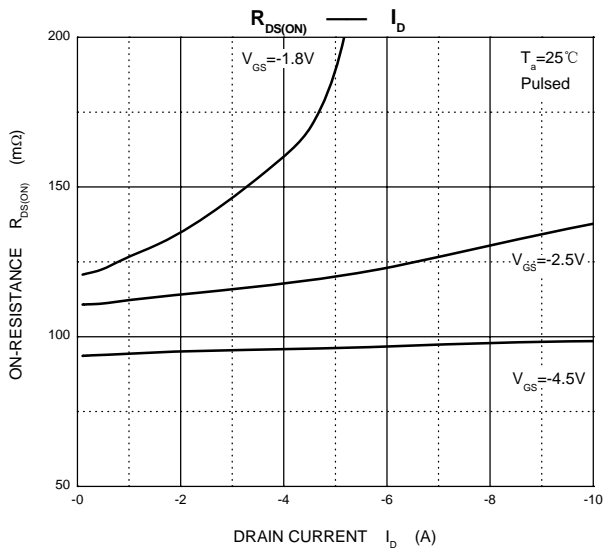
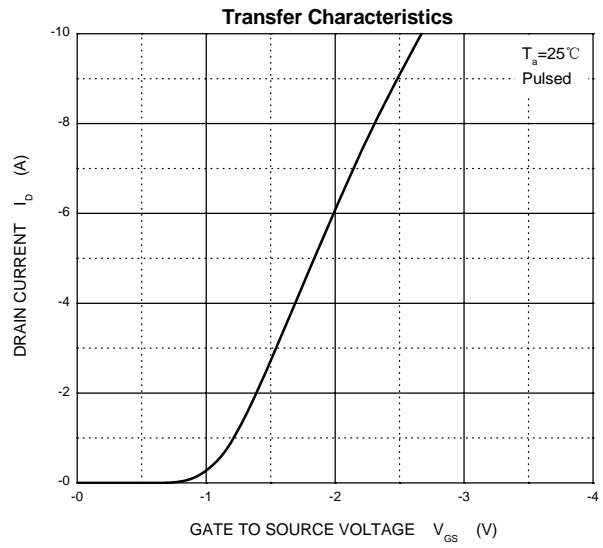
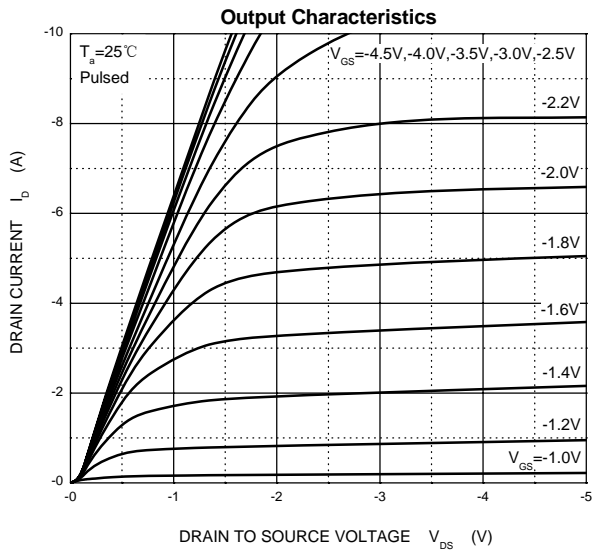
MOSFET ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
OFF CHARACTERISTICS						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-20			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = -20V, V_{GS} = 0V$			-1	μA
Gate-body leakage current	I_{GSS}	$V_{GS} = \pm 8V, V_{DS} = 0V$			± 100	nA
OFF CHARACTERISTICS⁽¹⁾						
Gate threshold voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-0.45	-0.65	-1.0	V
Drain-source on-resistance	$R_{DS(on)}$	$V_{GS} = -4.5V, I_D = -1.0A$		90	110	m Ω
		$V_{GS} = -2.5V, I_D = -0.5A$		115	140	
		$V_{GS} = -1.8V, I_D = -0.3A$		145	210	
Forward transconductance	g_{FS}	$V_{DS} = -10V, I_D = -0.8A$		2		S
CHARGES AND CAPACITANCES⁽³⁾						
Input Capacitance	C_{iss}	$V_{DS} = -8V, V_{GS} = 0V, f = 1MHz$		640		pF
Output Capacitance	C_{oss}			120		
Reverse Transfer Capacitance	C_{rss}			82		
SWITCHING CHARACTERISTICS^(2,3)						
Turn-on delay time	$t_{d(on)}$	$V_{GS} = -4.5V, V_{DD} = -4.0V,$ $I_D = -1.0A, R_G = 6.2\Omega$		6.2		ns
Turn-on rise time	t_r			15		
Turn-off delay time	$t_{d(off)}$			26		
Turn-off fall time	t_f			18		
Total Gate Charge	Q_g	$V_{DS} = -10V, V_{GS} = -4.5V, I_D = -3.0A$		5.5	10	nC
				3.3	6	
Gate-Source Charge	Q_{gs}	$V_{DS} = -10V, V_{GS} = -2.5V, I_D = -3.0A$		0.7		
Gate-Drain Charge	Q_{gd}			1.3		
Source-Drain Diode characteristics						
Diode Forward voltage	V_{DS}	$V_{GS} = 0V, I_S = -0.3A$			-1.2	V

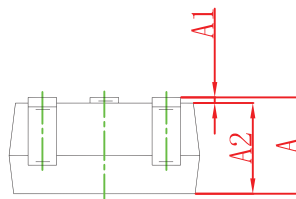
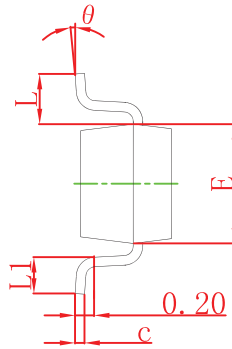
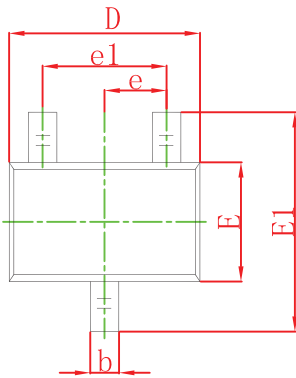
Notes

1. Pulse Test : pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.
2. Switching characteristics are independent of operating junction temperatures.
3. These parameters have no way to verify.

Typical Electrical



SOT-323 Package Information

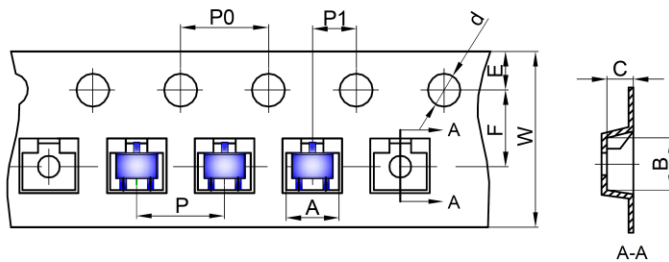


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-323 Tape and Reel

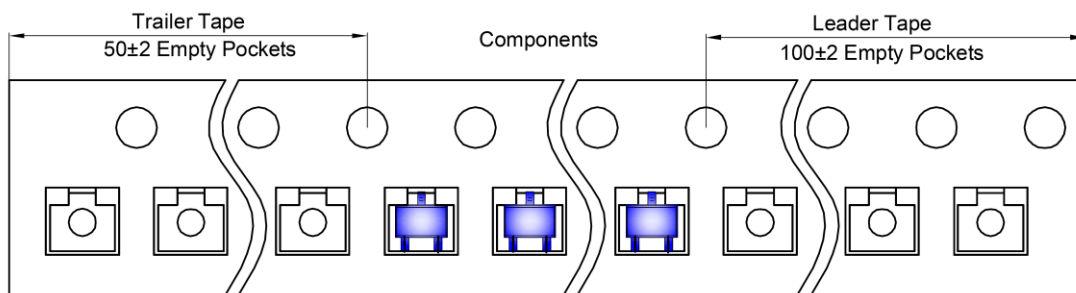
SOT-323 Tape and reel

SOT-323 Embossed Carrier Tape

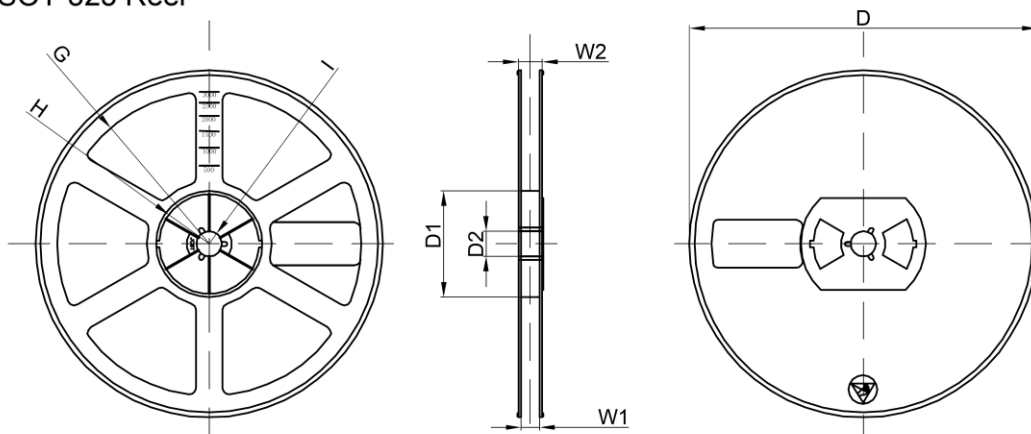


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOT-323 Tape Leader and Trailer



SOT-323 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

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\(格瑞宝\)](#)