

SOT-23 Plastic-Encapsulate Switching Diode

Features

- 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 350mW; Power Dissipation of 350mW
- High Stability and High Reliability
- Low reverse leakage



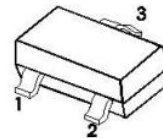
Marking: 5D

SOT-23

Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

Pin definition



Equivalent circuit



Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Reverse Voltage	V _R	100	V
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
Power Dissipation	P _D	350	mW
Average Rectified Current	I _O	300	mA
Peak Forward Surge Current@tp=1us; T _A =25°C	I _{FSM}	2.0	A
Operating junction temperature range	T _J	150	°C
Storage temperature range	T _{STG}	-55 to +150	°C
Thermal Resistance from Junction to Ambient	R _{θJA}	357	°C/W

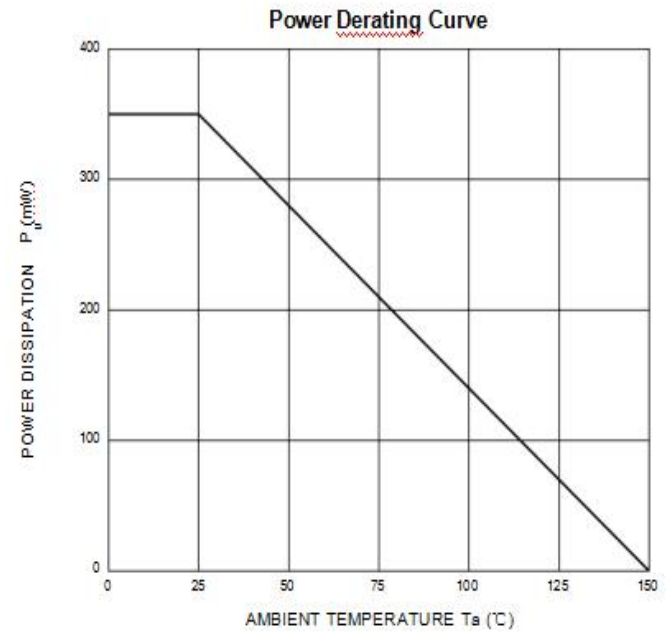
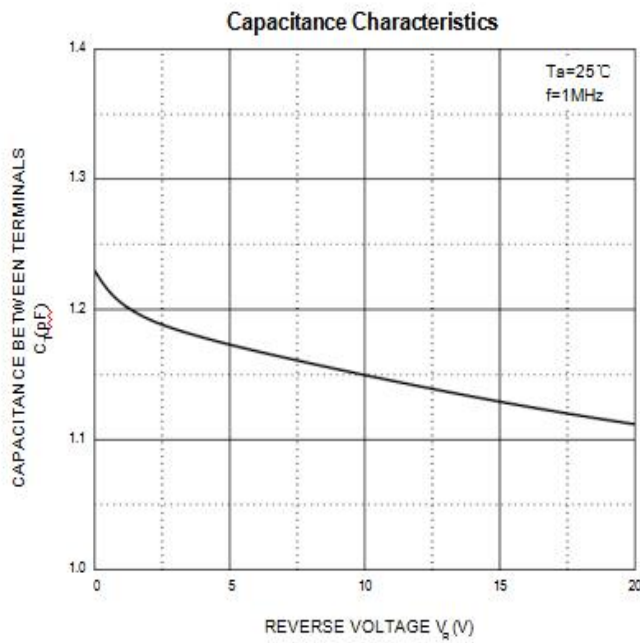
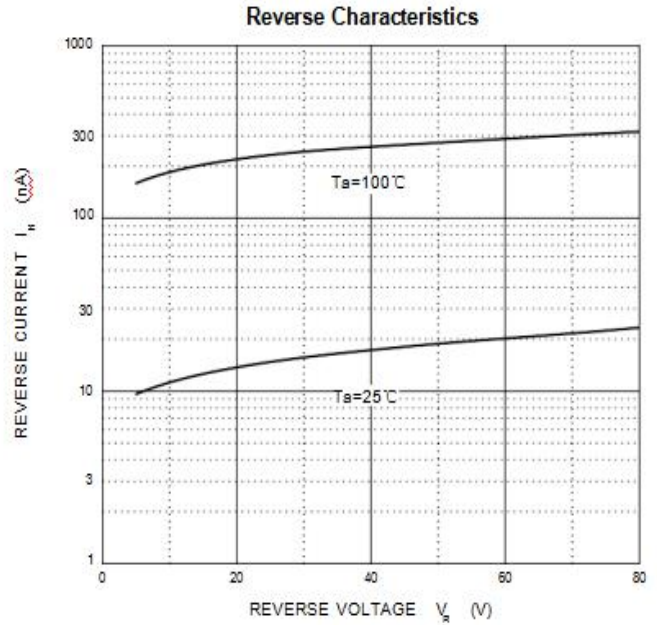
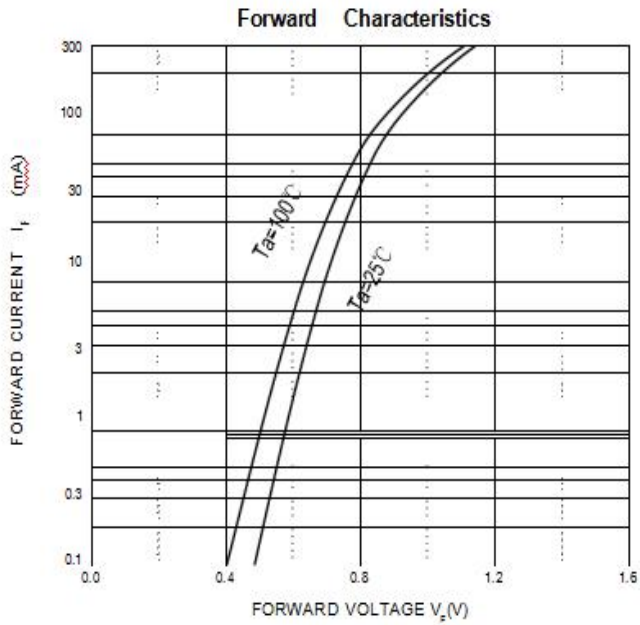
Valid provided that electrodes are kept at ambient temperature.

Electrical Specifications (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Limits		Unit
			Min	Max	
Reverse Voltage	V _(BR)	IR=100uA	100		V
Forward Voltage	V _F	IF=1mA		0.715	V
		IF=10mA		0.855	
		IF=50mA		1.00	
		IF=150mA		1.25	
Reverse Leakage Current	I _R	VR=75V		1	uA
		VR=20V		25	nA
Typical junction capacitance	C _J	VR=0V, f=1MHZ		2	pF
Typical reverse recovery time	T _{RR}	IF=IR=1.0mA RL=100Ω IRR=0.1 X IR		4	uS

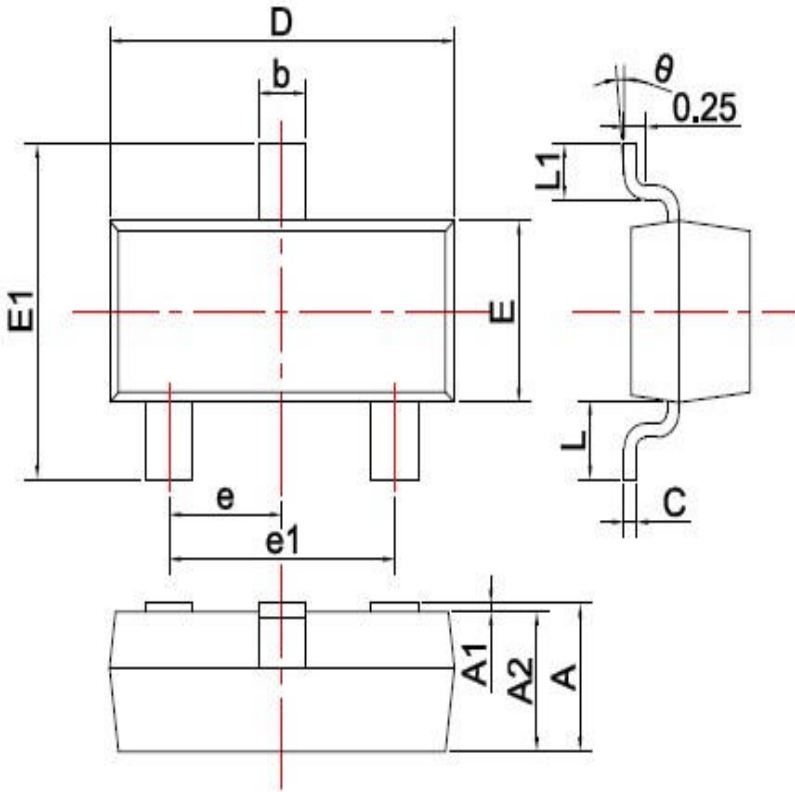
Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

millimeters



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.07.09	First issue

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