

SOT-23 Plastic-Encapsulate Switching Diodes

Features

- Very Low Leakage Current
- Low Reverse Recovery Time
- Halogen-free Package
- Surface Mount Package
- Epoxy UL: 94V-0



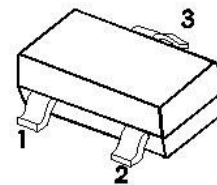
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SOT-23

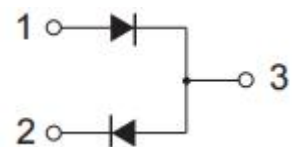
Mechanical Data

- Low Leakage Current Applications
- High Speed Switch Applications

Pin definition



Equivalent circuit



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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V _{RM}	85	V
Peak Repetitive Peak Reverse Voltage	V _{RRM}	80	V
Working Peak Reverse Voltage	V _{RWM}	80	V
DC Reverse Voltage	V _R	80	V
Non-repetitive Peak Forward Current	I _{FM}	300	mA
Average Rectified Current	I _O	100	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I _{FSM}	2	A
Power Dissipation	P _D	150	mW
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	833	°C/W

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

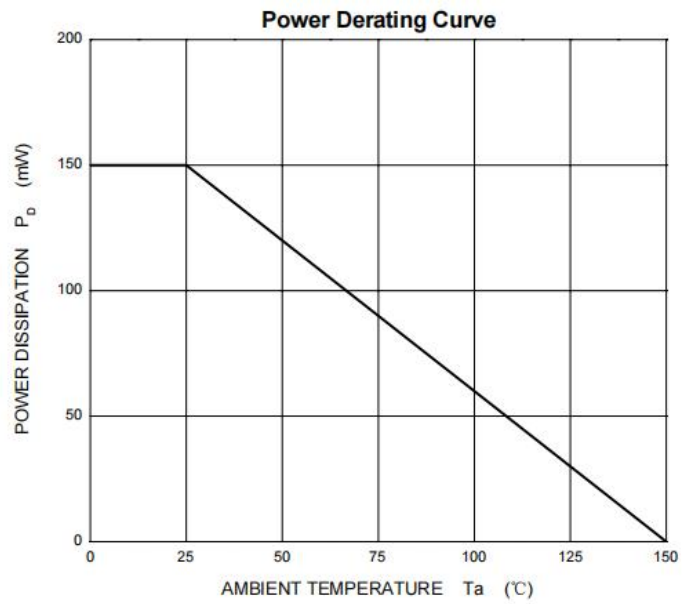
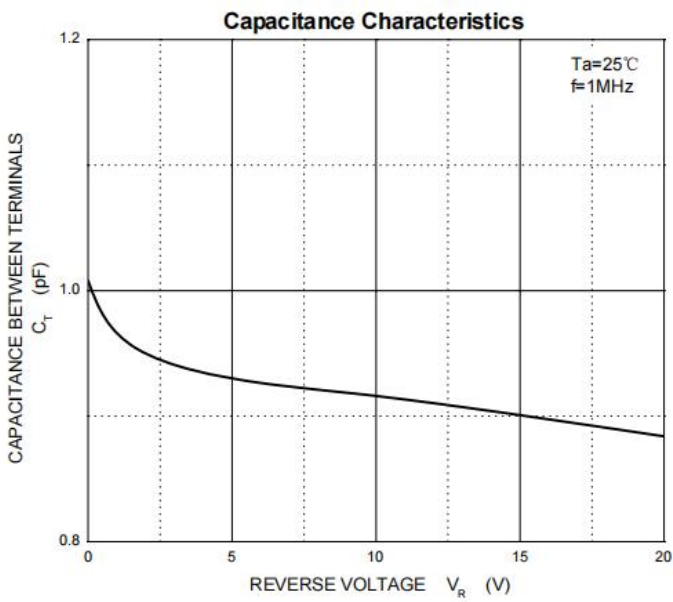
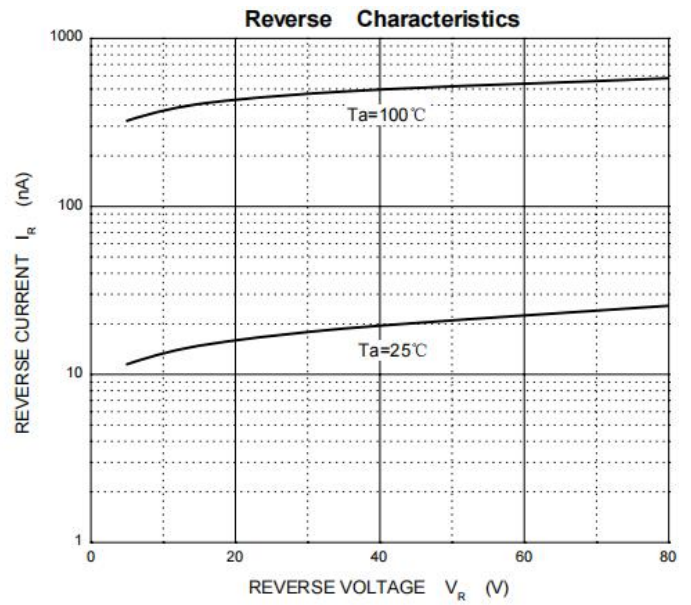
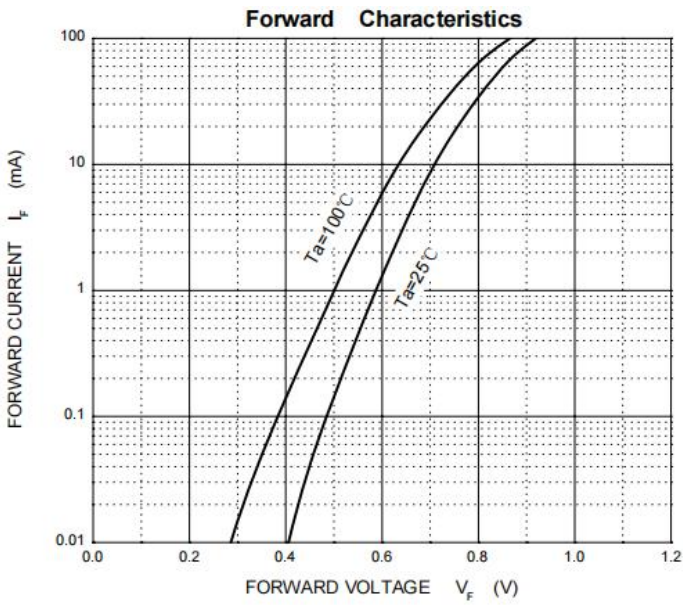
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 3)	V _(BR)	I _R = 100uA	80			V
Forward Voltage	V _F	I _F = 100mA			1.2	V
Leakage Current (Note 3)	I _R	V _R = 80V			0.5	uA
Diode Capacitance	C _D	V _R = 0, f = 1.0MHz			3	pF
Reverse Recovery Time	T _{RR}	I _F = 10mA			4	nS

Notes :

1. Device mounted on FR-4 PC board with recommended pad layout.
2. No purposefully added lead.
3. Short duration test pulse used to minimize self-heating effect.

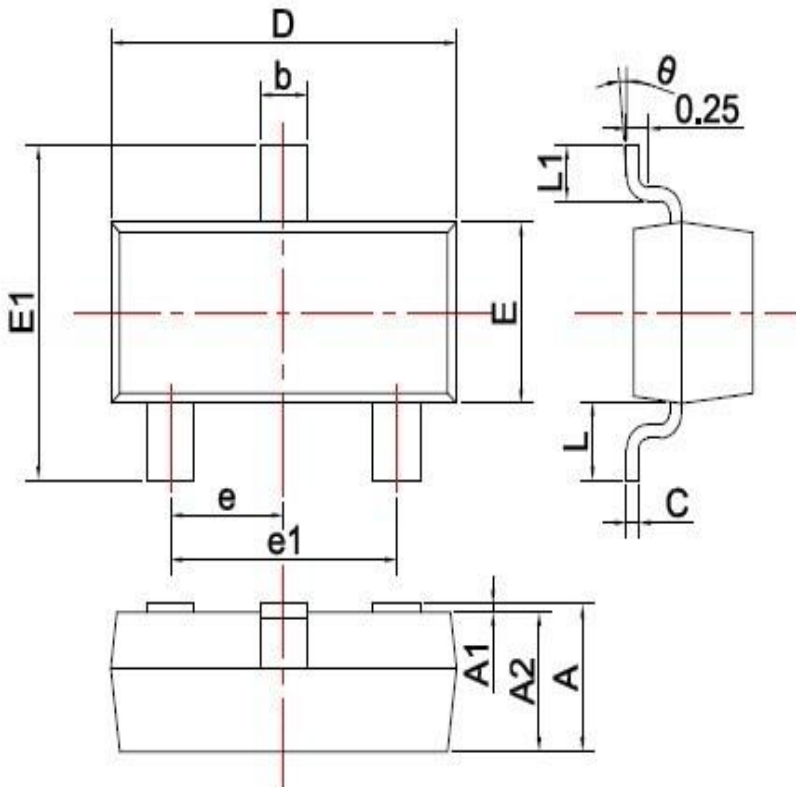
Ratings and Characteristics Curves

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



Package Outline Dimensions

in inches (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°

Unit: mm

Revision History

Document Version	Date of release	Description of changes
Rev.A	2022.05.10	First issue

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