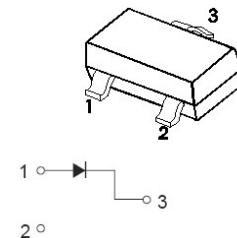


## SOT-23 Plastic-Encapsulate Switching Diode

### Features

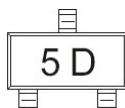
- Fast Switching Device (TRR <4.0 nS)
- Power Dissipation of 350mW
- High Stability and High Reliability
- Low reverse leakage
- AEC-Q 101 qualified (Automotive grade with suffix " Q " )
- Expsemi electronics

**SOT-23**

### Mechanical Data

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

### MARKING: 5D



**Maximum Ratings & Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

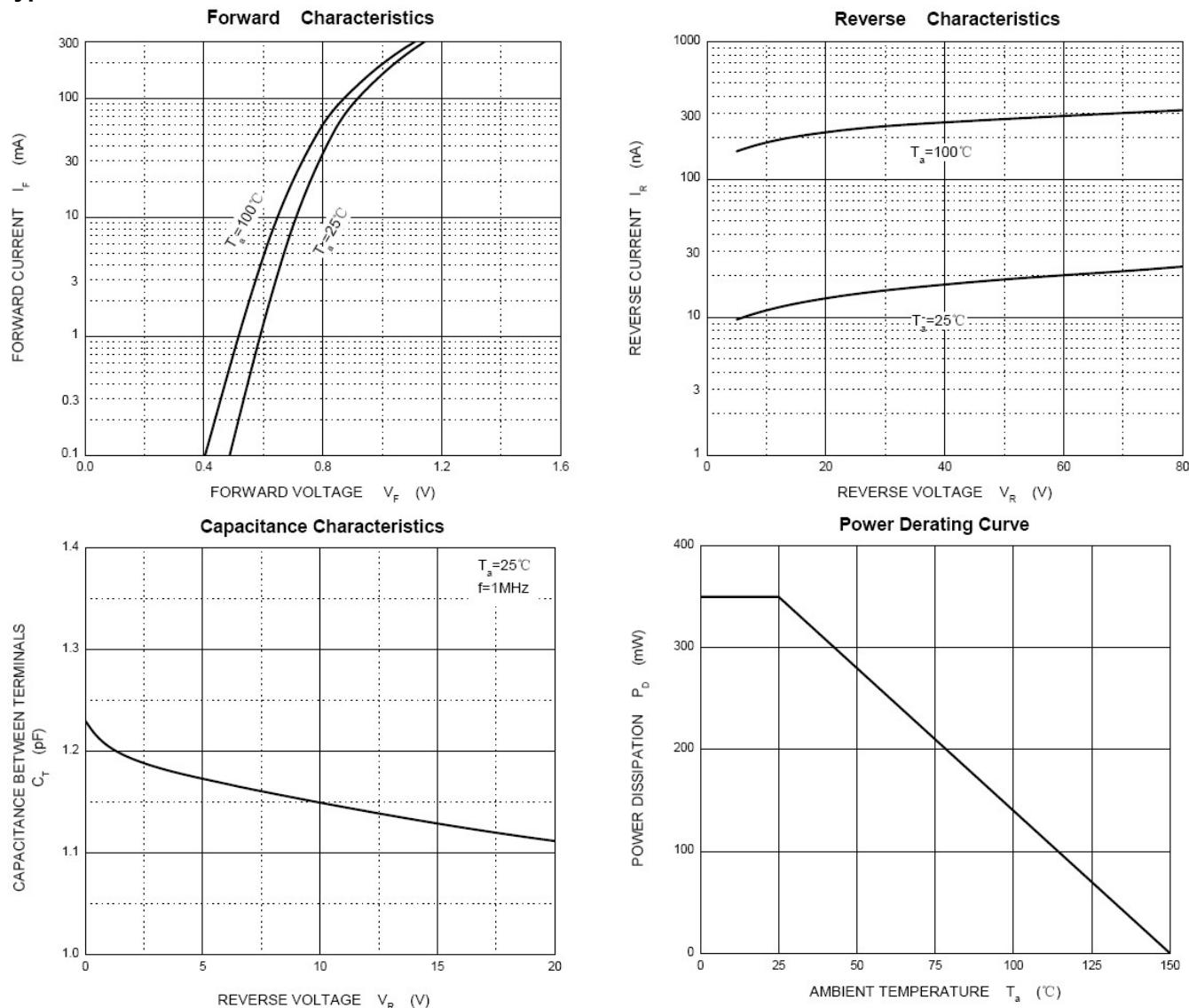
Parameters	Symbol	Value	Unit
Reverse Voltage	VR	100	V
Peak Repetitive Reverse Voltage	V <sub>R<sub>RRM</sub></sub>	100	V
Power Dissipation	P <sub>d</sub>	350	mW
Average Rectified Current	I <sub>o</sub>	300	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms; TA=25°C	I <sub>FSM</sub>	2.0	A
Operating junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>s</sub>	-55-+150	°C
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	357	°C/W

Valid provided that electrodes are kept at ambient temperature.

**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified).

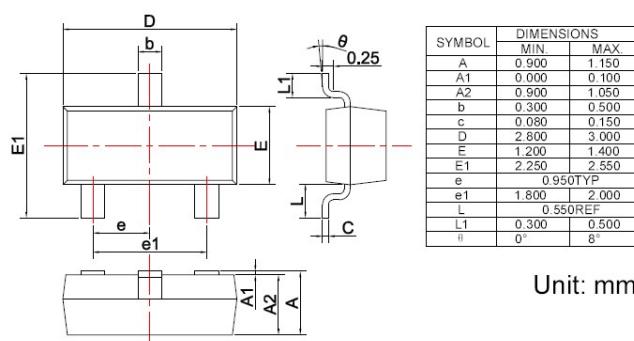
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
V(BR)	Reverse Voltage	IR=100uA	100		V
IR	Reverse Leakage Current	VR=75V	---	1.0	uA
		VR=20V	---	25	nA
VF	Forward Voltage	IF=1.0mA	---	0.715	V
		IF=10mA	---	0.855	
		IF=50mA	---	1.00	
		IF=150mA	---	1.25	
TRR	Reverse Recovery Time	IF= IR=10mA	---	4	nS
		RL=100Ω			
		IRR=0.1 X IR			
CT	Capacitance	VR=0V, f=1MHZ	---	2	pF

## Typical Characteristics

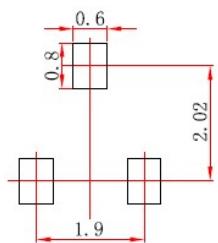


## SOT-23 PACKAGE OUTLINE

Plastic surface mounted package



## SOT-323 Suggested Pad Layout



Note:  
 1. Controlling dimension: in millimeters.  
 2. General tolerance:  $\pm 0.05\text{mm}$ .  
 3. The pad layout is for reference purposes only.