

SOT-23 Plastic-Encapsulate Switching Diode

FEATURES

- * Fast Switching Device (TRR <6.0 nS)
- * Power Dissipation of 225mW
- * High Stability and High Reliability
- * Low reverse leakage
- * P/N suffix V means AEC-Q101 qualified, eg:BAS16V
- * P/N suffix V means Halogen-free

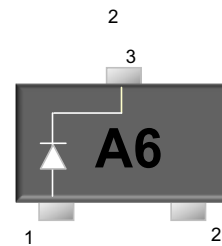
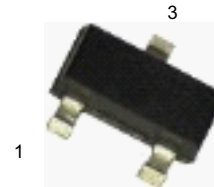
MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * SOT-23 Small Outline Plastic Package

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, resistive or inductive load.

SOT-23



MARKING: A6

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

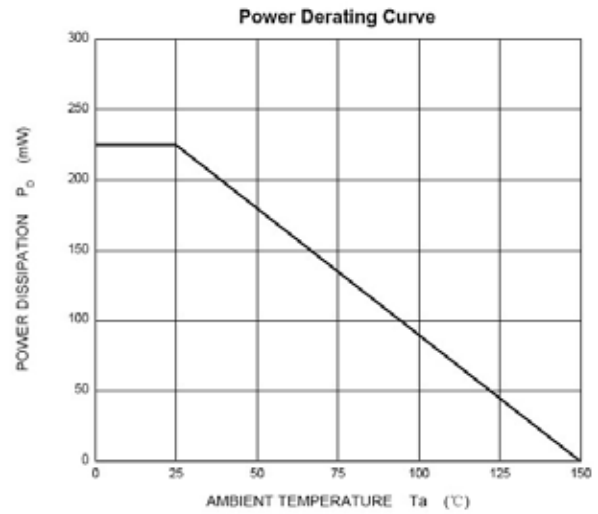
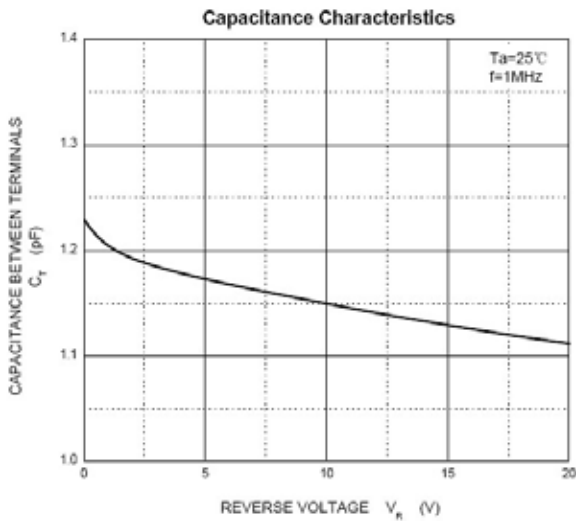
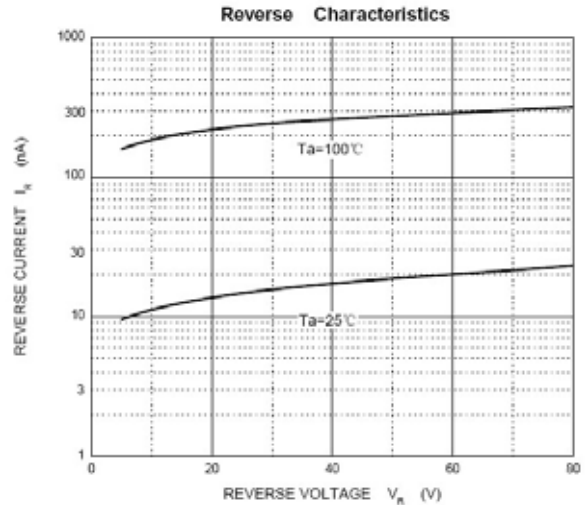
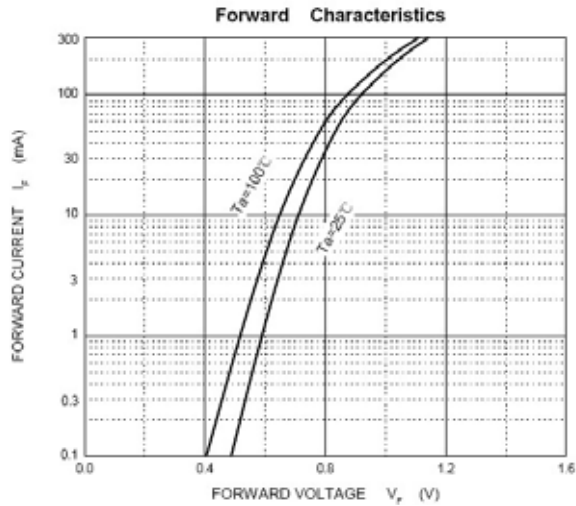
Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Power Dissipation	P_d	225	mW
Average Rectified Output Current	I_o	150	mA
Non-Repetitive Peak Forward Surge Current @t=1us; TA=25 °C	I_{FSM}	2.0	A
Operating junction temperature	T_j	-55-+150	°C
Storage temperature range	T_s	-55-+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	°C/W

Notes:Valid provided that electrodes are kept at ambient temperature.

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

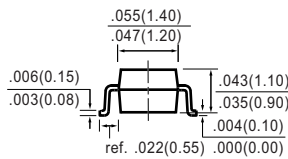
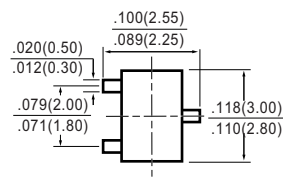
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
V(BR)	Reverse Voltage	IR=100uA	75		V
IR	Reverse Leakage Current	VR=75V	---	1.0	uA
VF	Forward Voltage	IF=1.0mA	---	0.715	V
		IF=10mA	---	0.855	
		IF=50mA	---	1.0	
		IF=150mA	---	1.25	
TRR	Reverse Recovery Time	IF= IR=10mA	---	6	nS
		RL=100Ω			
		IRR=0.1 X IR			
CT	Capacitance	VR=0V, f=1MHZ	---	2	pF

RATING AND CHARACTERISTICS CURVES (BAS16V)

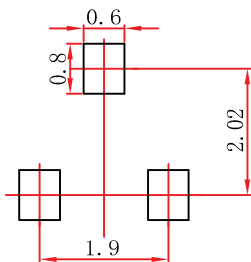


SOT-23 PACKAGE OUTLINE

Plastic surface mounted package



Precautions: PCB Design(Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



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

PACKAGING OF DIODE

REEL PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOT-23/-3L	-T	3,000	---	---	178	438*438*220	180,000	---

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