



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SURFACE MOUNT
SWITCHING DIODE**

VOLTAGE 100 Volts CURRENT 0.25 Ampere

BAS316GP-A

APPLICATION

- * Ultra high speed switching

FEATURE

- * Small surface mounting type. (SC-76/SOD-323)
- * High speed. ($T_{RR}=1.5\text{nSec}$ Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 225mW.

CONSTRUCTION

- * Silicon epitaxial planar

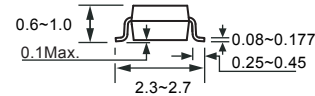
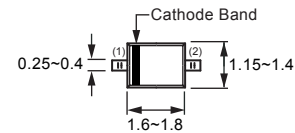
MARKING

- * Z9

CIRCUIT



SC-76/SOD-323



Dimensions in millimeters

SC-76/SOD-323

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

RATINGS	SYMBOL	BAS316GP-A	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	Volts
Maximum RMS Voltage	V_{RMS}	70	Volts
Maximum DC Blocking Voltage	V_{DC}	75	Volts
Maximum Average Forward Rectified Current	I_o	0.25	Amps
Peak Forward Surge Current at 1uSec.	I_{FSM}	4.0	Amps
Typical Junction Capacitance between Terminal (Note 1)	C_J	4.0	pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	4.0	nSec
Maximum Operating Temperature Range	T_J	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	BAS316GP-A	UNITS
Maximum Instantaneous Forward Voltage at $I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$	V_F	0.715 0.855 1.0 1.25	Volts
Maximum Average Reverse Current at $V_R = 25\text{V}$ $V_R = 75\text{V}$	I_R	0.03 1.0	μAmps

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.
2. Measured at applied forward current of 10mA and reverse voltage of 6.0 volts.
3. ESD sensitive product handling required.

2004-9

RATING CHARACTERISTIC CURVES (BAS316GP-A)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURRENT

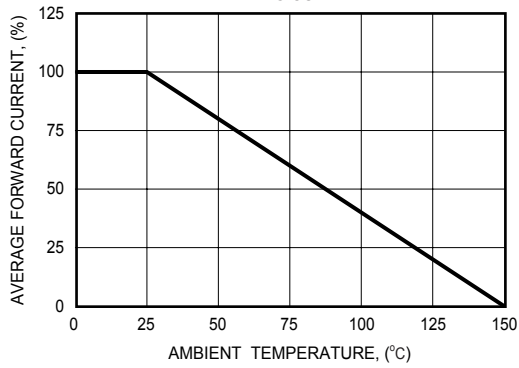


FIG. 2 - FORWARD CHARACTERISTICS

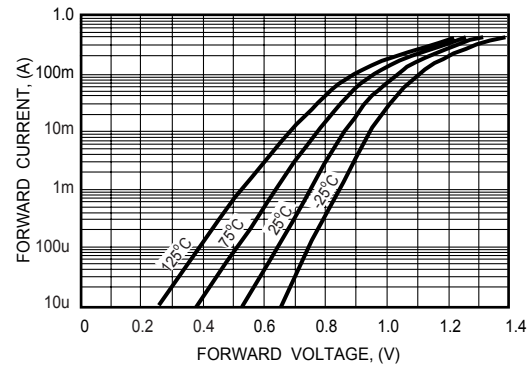


FIG. 3 - REVERSE CHARACTERISTICS

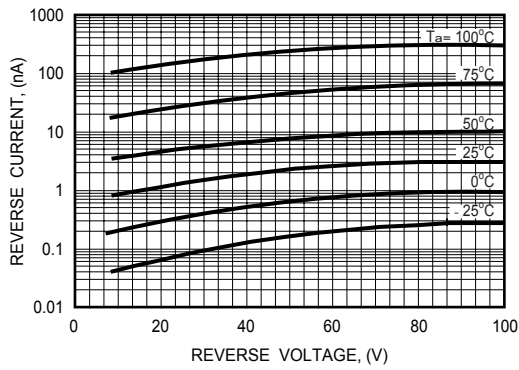


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

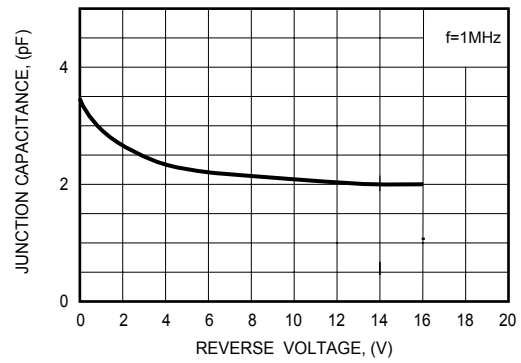


FIG. 5 - REVERSE RECOVERY TIME

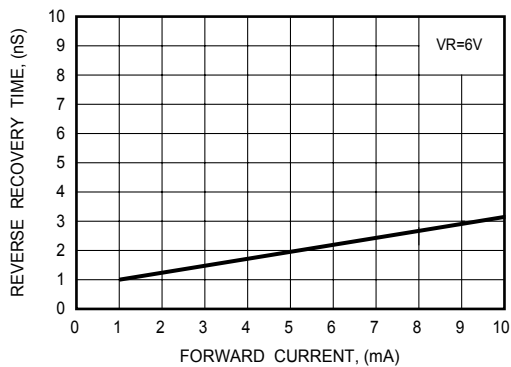


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

