CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

FAST SWITCHING DIODE

VOLTAGE RANGE 250 Volts CURRENT 200 mAmpere

BAS21HGP

FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* For surface mounted applications
* Low profile package
* Built-in strain relief
* Low power loss, high efficiency
* High current capability, low forward voltage drop
* Power dissipation: 150mW
* Repetitive peak forward surge current: 625mA
* High temperature soldering guaranteed : 260°C/10 seconds at terminals

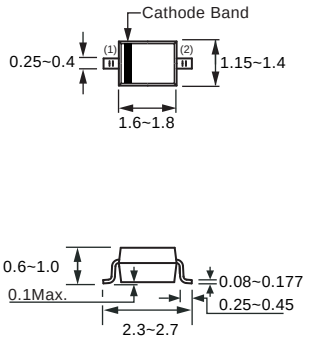
MECHANICAL DATA

Case: JEDEC SC-76 molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end

MARKING

* X9

SC-76/SOD-323



Dimensions in millimeters

SC-76/SOD-323

CIRCUIT

MAXIMUM RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS		SYMBOL	BAS21HGP	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	250	Volts
Maximum RMS Voltage		V_{RMS}	141	Volts
Maximum DC Blocking Voltage		V_{DC}	200	Volts
Maximum Average Forward Rectified Current at T_L = 100°C		I_O	200	mAmps
Non-Repetitive Peak Forward Surge Current	@ t=1.0uS	I_{FSM}	2.5	Amps
	@ t=1.0S		0.5	
Typic Junction Capacitance (Note 2)		C_J	5.0	pF
Maximum Reverse Recovery Time (Note 3)		T_{RR}	50	nS
Typical Thermal Resistance (Note 1)		$R_{\theta JA}$	833	°C / W
Storage and Operating Temperature Range		T_J, T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	BAS21HGP	UNITS
Maximum Instantaneous Forward Voltage	@ I_F = 100 mA	V_F	1.00	Volts
	@ I_F = 200 mA		1.25	Volts
Maximum Average Reverse Current at Ratied DC Blocking Voltage	@ T_A = 25°C	I_R	100	nAmps
	@ T_J = 100°C		15	uAmps
Breakdown Voltage(Minimun)		Bv	250	Volts

NOTES : 1. Thermal Resistance (Junction to Lead) : PC Board Mounted on 0.06 X 0.06" (0.15X 0.15mm) copper pad area.
2. Measured at 1.0 MHz and applied reverse voltage of 0 volt.
3. I_F=I_R=30 mA, I_{RR}=0.1XI_R, R_L=100 ohms

2002-9

RATING CHARACTERISTIC CURVES (BAS21HGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERAING CURVE

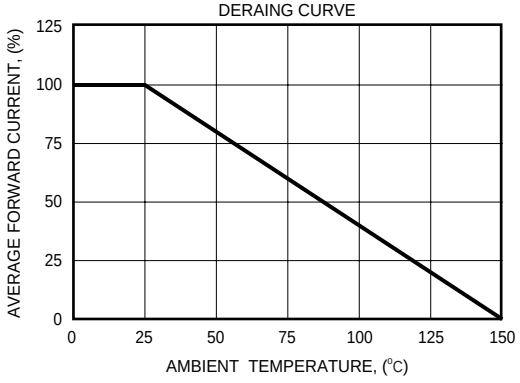


FIG. 2 - FORWARD CHARACTERISTICS

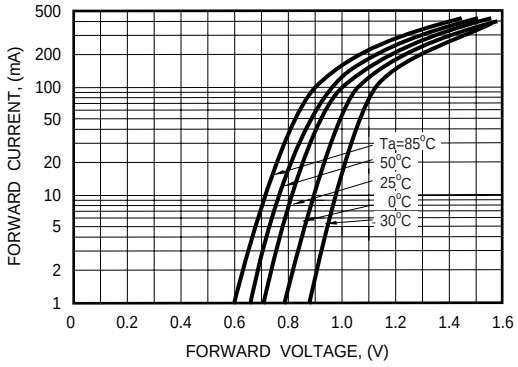


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

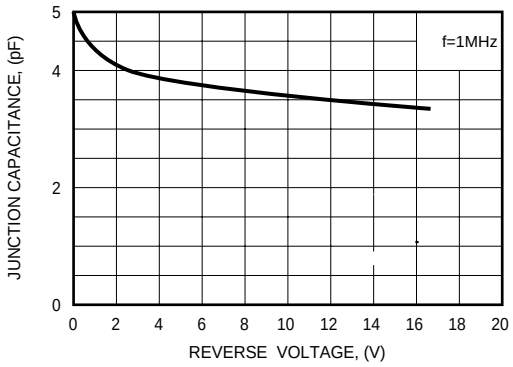


FIG. 4 - REVERSE CHARACTERISTICS