



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SURFACE MOUNT
FAST SWITCHING DIODE**

VOLTAGE RANGE 100 Volts CURRENT 150 mAmpere

BAV70BGP

FEATURES

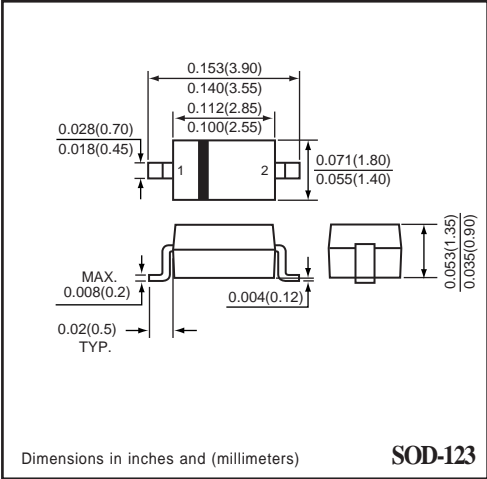
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * For surface mounted applications
- * Low profile package
- * Built-in strain relief
- * Low power loss, high efficiency
- * High current capability, low forward voltage drop
- * Power dissipation: 350mW
- * Repetitive peak forward surge current: 450mA
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SOD-123 molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.001 ounce 0.032 gram

MARKING

* S1



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS		SYMBOL	BAV70BGP	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	100	Volts
Maximum RMS Voltage		VRMS	53	Volts
Maximum DC Blocking Voltage		VDC	75	Volts
Maximum Average Forward Rectified Current at TL = 100°C		IO	150	mAmps
Non-Repetitive Peak Forward Surge Current	@ t=1.0uS	IFSM	2.0	Amps
	@ t=1.0S		1.0	
Typic Junction Capacitance (Note 2)		CJ	2.0	pF
Maximum Reverse Recovery Time (Note 3)		TRR	4.0	nS
Typical Thermal Resistance (Note 1)		R θJA	357	°C / W
Storage and Operating Temperature Range		TJ, TSTG	-65 to +150	°C

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

CHARACTERISTICS		SYMBOL	BAV70BGP	UNITS
Maximum Instantaneous Forward Voltage	@ IF = 1.0 mA	VF	0.715	Volts
	@ IF = 10 mA		0.855	
	@ IF = 50 mA		1.00	Volts
	@ IF = 150 mA		1.25	
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ VR = 20 V	IR	25	nAmps
	@ VR = 25 V, TJ=150°C		30	uAmps
	@ VR = 75 V		2.5	uAmps
	@ VR = 75 V, TJ=150°C		50	uAmps

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. IF=10 mA, IRR=0.1XIR, RL=100 ohms

2012-05

RATING CHARACTERISTIC CURVES (BAV70BGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

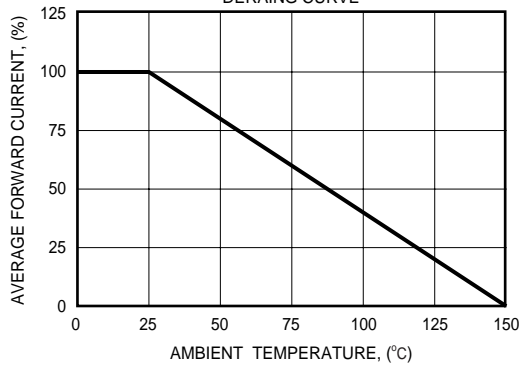


FIG. 2 - FORWARD CHARACTERISTICS

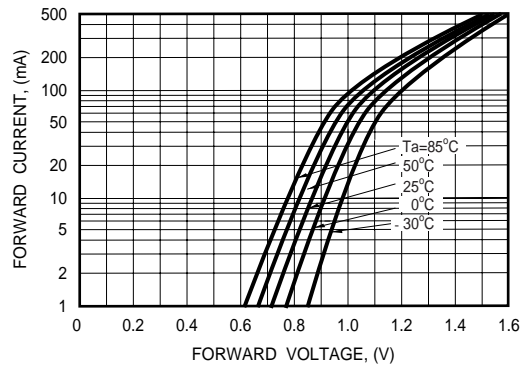


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

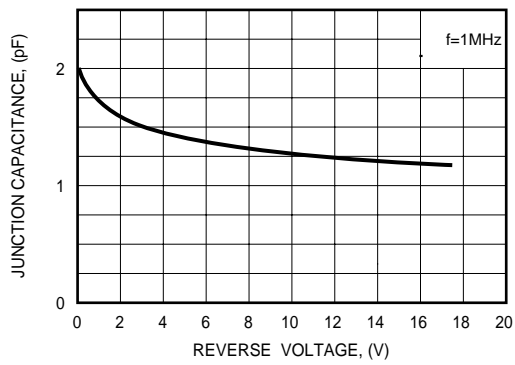


FIG. 4 - REVERSE CHARACTERISTICS

