

CHENMKO ENTERPRISE CO.,LTD

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 70 - 100 Volts CURRENT 1.0 Ampere

SB070GP THRU SB0B0GP

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High reliability
- * High surge capability
- * High temperature soldering guaranteed : 260°C/10 seconds , 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC R-1 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750,

Method 2026

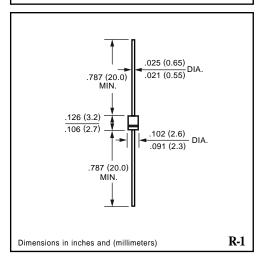
Polarity: Color band denotes cathode end

Mounting Position: Any Weight: 0.19 gram

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 RATINGES (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	SB070GP	SB080GP	SB090GP	SB0B0GP	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	70	80	90	100	Volts
Maximum RMS Voltage	VRMS	49	56	63	70	Volts
Maximum DC Blocking Voltage	VDC	70	80	90	100	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length (SEE FIG.1)	lo	1.0				
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30				
Typical Junction Capacitance (Note 1)	C1	110				
Typical Thermal Resistance (Note 2)	R θ JA	80				
Operating Temperature Range	TJ	-65 to +150				
Storage Temperature Range	Tstg	-65 to +150				

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

CHARACTERISTICS		SYMBOL	SB070GP	SB080GP	SB090GP	SB0B0GP	UNITS					
Maximum Instantaneous Forward Voltage at 1.0 A DC		VF	0.70		0.85		Volts					
Maximum Average Reverse Current	@ Ta = 25°C	l R	1.0				mAmps					
at Rated DC Blocking Voltage	@ Ta = 100°C	l ik	10									

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.

2008-01

RATING CHARACTERISTIC CURVES (SB070GP THRU SB0B0GP) FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE FIG. 2 - TYPICAL INSTANTANEOUS INSTANTANEOUS FORWARD CURRENT, (A) FORWARD CHARACTERISTICS 20 AVERAGE FORWARD CURRENT, (A) 10 .75 SB070GP~SB08 .50 1.0 Single Half Wave 60Hz .25 Resistive or Inductive Load 1% Duty Cycle 0 0.1 0 25 75 100 125 150 175 .3 .9 1.1 1.3 1.5 1.7 LEAD TEMPERATURE, (°C) INSTANTANEOUS FORWARD VOLTAGE,(V) FIG. 3A - TYPICAL REVERSE CHARACTERISTICS FIG. 3B - TYPICAL REVERSE CHARACTERISTICS 100 100 INSTANTANEOUS REVERSE CURRENT, (mA) INSTANTANEOUS REVERSE CURRENT, (mA) 10 10 T_J = 150°C 1.0 .10 .10 .01 .01 .001 .001 0 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%) PERCENT OF RATED PEAK REVERSE VOLTAGE, (%) FIG. 4 - TYPICAL JUNCTION CAPACITANCE FIG. 5 - MAXIMUM NON-REPETIVE FORWARD SURGE CURRENT 400 PEAK FORWARD SURGE CURRETN(A) 50 JUNCTION CAPACITANCE, (pF.) 200 40 8.3ms Single Half Sine-Wave (JEDEC Method) 100 80 30 60 20 40 10 20 10 40 2 80 100 80 6 8 10 REVERSE VOLTAGE, (V) NUMBER OF CYCLES AT 60 Hz