



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
FAST SWITCHING DIODE**

**VOLTAGE RANGE 250 Volts CURRENT 200 mAmpere**

**BAS21BGP**

**FEATURES**

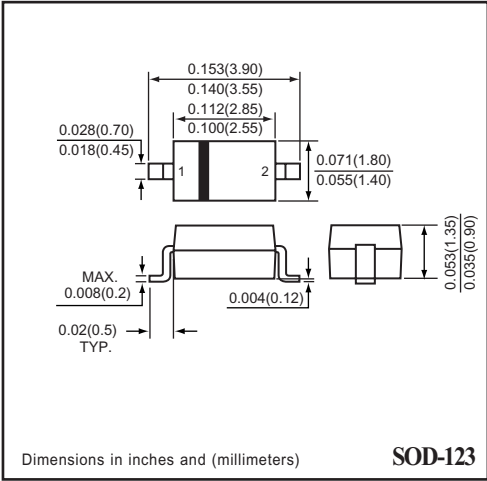
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications
- \* Low profile package
- \* Built-in strain relief
- \* Low power loss, high efficiency
- \* High current capability, low forward voltage drop
- \* Power dissipation: 250mW
- \* Repetitive peak forward surge current: 625mA
- \* 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**

\* K1



**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	UNITS	BAS21BGP	
Maximum Recurrent Peak Reverse Voltage	VRRM		250	Volts
Maximum RMS Voltage	VRMS		141	Volts
Maximum DC Blocking Voltage	VDC		200	Volts
Maximum Average Forward Rectified Current at TL = 100°C	Io		200	mAmps
Non-Repetitive Peak Forward Surge Current	@ t=1.0uS	IFSM	2.5	Amps
	@ t=1.0S		0.5	
Typic Junction Capacitance (Note 2)	CJ		5.0	pF
Maximum Reverse Recovery Time (Note 3)	TRR		50	nS
Typical Thermal Resistance (Note 1)	R #JA		833	°C / W
Storage and Operating Temperature Range	TJ, TSTG		-65 to +150	°C

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

CHARACTERISTICS	SYMBOL	UNITS	BAS21BGP	UNITS	
Maximum Instantaneous Forward Voltage	VF		@ IF = 100 mA	1.00	Volts
			@ IF = 200 mA	1.25	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	IR		@ TA = 25°C	100	nAmps
			@ TJ = 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 MH z and applied reverse voltage of 0 volt.  
 3. IF=IR=30 mA, IRR=0.1XIR, RL=100 ohms

## RATING CHARACTERISTIC CURVES ( BAS21BGP )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

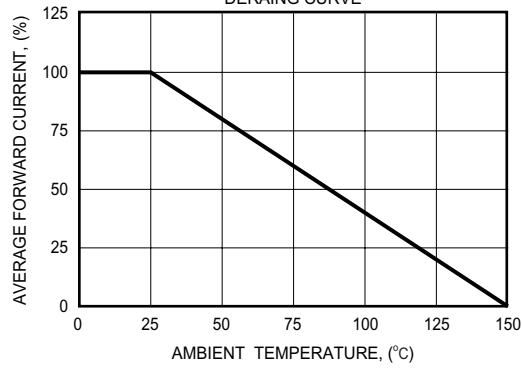


FIG. 2 - FORWARD CHARACTERISTICS

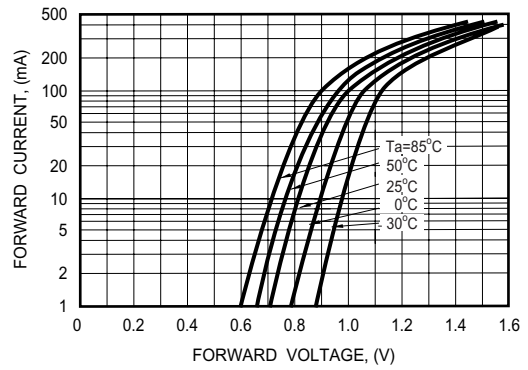


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

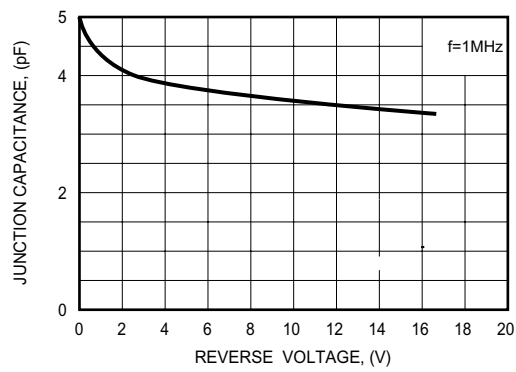


FIG. 4 - REVERSE CHARACTERISTICS

