



CHENMKO ENTERPRISE CO.,LTD

BAS21GP

Halogens free devices

SURFACE MOUNT

FAST SWITCHING DIODE

VOLTAGE RANGE 250 Volts CURRENT 200 mAmpere

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 SOT-23 molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

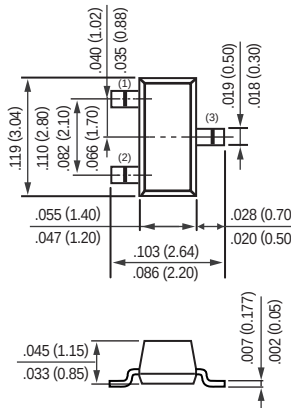
Polarity: Color band denotes cathode end

MARKING

* A2



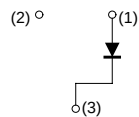
SOT-23



Dimensions in millimeters

SOT-23

CIRCUIT



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

RATINGS		SYMBOL	BAS21GP	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 $T_L = 100^\circ\text{C}$		I_O	200	mAmps
Non-Repetitive Peak Forward Surge Current	@ $t=1.0\mu\text{S}$	I_{FSM}	2.5	Amps
	@ $t=1.0\text{S}$		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	$^\circ\text{C} / \text{W}$
Storage and Operating Temperature Range		T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

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

CHARACTERISTICS		SYMBOL	BAS21GP	UNITS
Maximum Instantaneous Forward Voltage	@ $I_F = 100 \text{ mA}$	V_F	1.00	Volts
	@ $I_F = 200 \text{ mA}$		1.25	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ\text{C}$	I_R	100	nAmps
	@ $T_J = 100^\circ\text{C}$		15	uAmps
Breakdown Voltage(Minimun)		B_V	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. $I_F=I_R=30 \text{ mA}$, $I_{RR}=0.1X I_R$, $R_L=100 \text{ ohms}$

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RATING CHARACTERISTIC CURVES (BAS21GP)

FIG. 1 - TYPICAL FORWARD CURRENT
DERATING CURVE

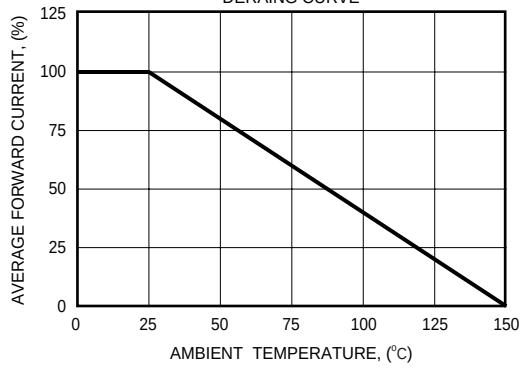


FIG. 2 - FORWARD CHARACTERISTICS

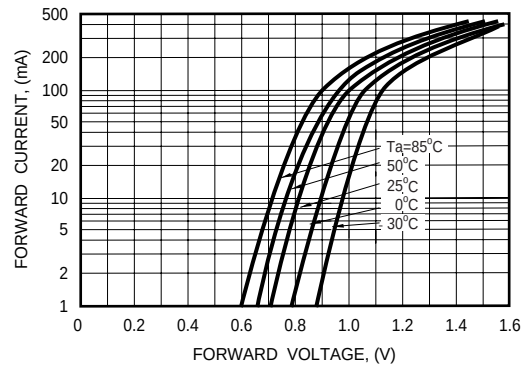


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

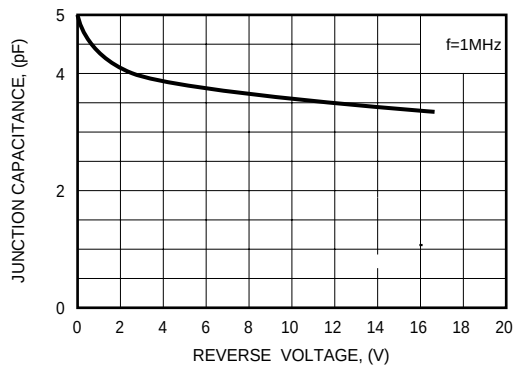


FIG. 4 - REVERSE CHARACTERISTICS

