



CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

FAST SWITCHING DIODE

VOLTAGE RANGE 250 Volts CURRENT 200 mAmpere

BAS21TPT

Lead free devices

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-75 molded plastic

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

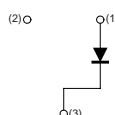
Polarity: Color band denotes cathode end

Weight: 0.002 gram

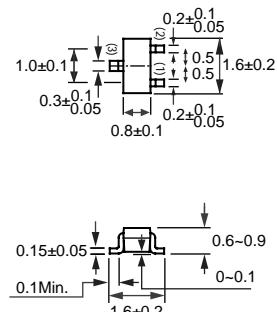
MARKING

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CIRCUIT



SC-75/SOT-416



Dimensions in millimeters

SC-75/SOT-416

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

RATINGS	SYMBOL	BAS21TPT	UNITS
Maximum Recurrent Peak Reverse Voltage	VR _{RM}	250	Volts
Maximum RMS Voltage	VR _{MS}	141	Volts
Maximum DC Blocking Voltage	V _{DC}	200	Volts
Maximum Average Forward Rectified Current at TL = 100°C	I _O	200	mAmps
Non-Repetitive Peak Forward Surge Current @ t=1.0uS @ t=1.0S	I _{FSM}	2.5 0.5	Amps
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 _{θJA}	833	°C / W
Storage and Operating Temperature Range	T _J , T _{STG}	-65 to +150	°C

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

CHARACTERISTICS	SYMBOL	BAS21TPT	UNITS
Maximum Instantaneous Forward Voltage @ I _F = 100 mA @ I _F = 200 mA	V _F	1.00	Volts
		1.25	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage @ TA = 25°C @ TJ = 100°C	I _R	100	nAmps
		15	uAmps
Breakdown Voltage(Minimum)	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 mA, I_{RR}=0.1XI_R, R_L=100 ohms

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RATING CHARACTERISTIC CURVES (BAS21TPT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

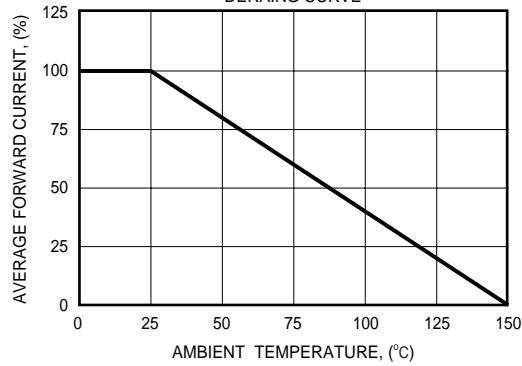


FIG. 2 - FORWARD CHARACTERISTICS

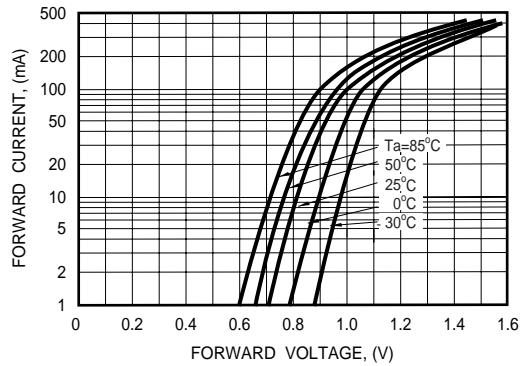


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

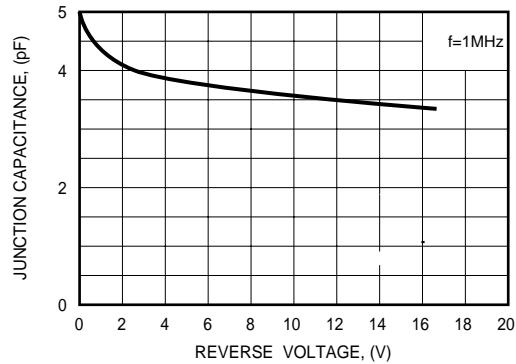


FIG. 4 - REVERSE CHARACTERISTICS

