



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

FAST SWITCHING DIODE ARRAY

VOLTAGE 75 Volts CURRENT 150 mAmpere

BAV16BGP

APPLICATION

- * Ultra high speed switching
- * For general purpose switching application

FEATURE

- * Small surface mounting type. (SOD-123)
- * High speed. (TRR=1.5nSec Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 200mW.
- * Peak forward current is 300mA.
- * Lead free devices

CONSTRUCTION

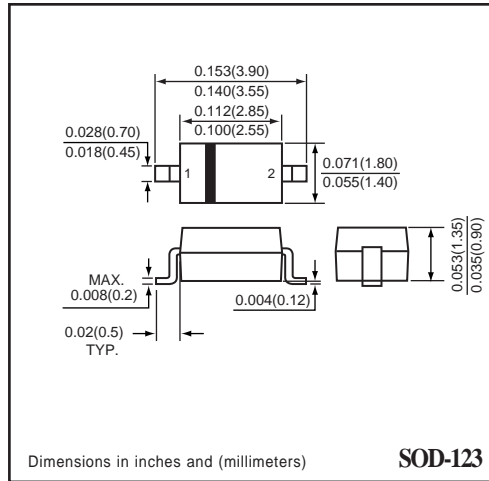
- * Silicon epitaxial planar

MARKING

- * VA



SOD-123



Dimensions in inches and (millimeters)

SOD-123

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	BAV16BGP	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	VRM	100	Volts
Maximum RMS Voltage	VRMS	53	Volts
Maximum Repetitive Peak Reverse and DC Blocking Voltage	VRRM, VDC	75	Volts
Maximum Average Forward Rectified Current	IO	150	mAmps
Non-Repetitive Peak Forward Surge Current	@t=1.0uSec	2.0	Amps
	@t=1.0Sec	1.0	
Typical Junction Capacitance between Terminal (Note 1)	CJ	2.0	pF
Maximum Reverse Recovery Time (Note 2)	TRR	4.0	nSec
Thermal Resistance Junction to Ambient (Note 3)	RθJA	625	°C/W
Maximum Operating and Storage Temperature Range	TJ,TSTG	-65 to +150	°C

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

CHARACTERISTICS	SYMBOL	BAV16BGP	UNITS
Maximum Instantaneous Forward Voltage	VF	@IF=1.0mA	0.715
		@IF=10mA	0.855
		@IF=50mA	1.00
		@IF=150mA	1.25
Maximum Average Reverse Current	IR	@VR=20V	25
		@VR=75V	1.0
		@VR=25V, TJ=150°C	30
		@VR=75V, TJ=150°C	50

- NOTES :
1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.
 2. Measured at applied forward current of 10mA and reverse current of 10mA.
 3. Device mounted on FR-4 by 1 inch X 0.85 inch X 0.062 inch
 4. ESD sensitive product handling required.

2012-05

RATING CHARACTERISTIC CURVES (BAV16BGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

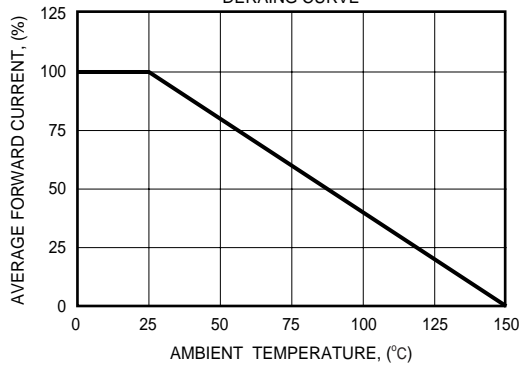


FIG. 2 - FORWARD CHARACTERISTICS

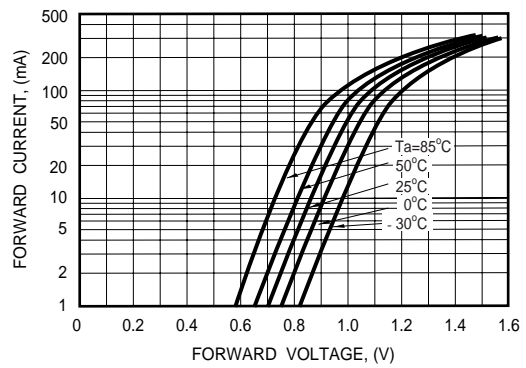


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

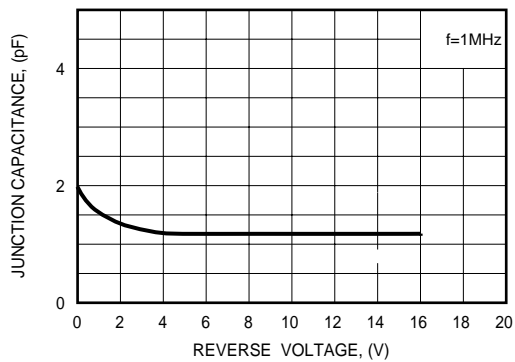


FIG. 4 - REVERSE CHARACTERISTICS

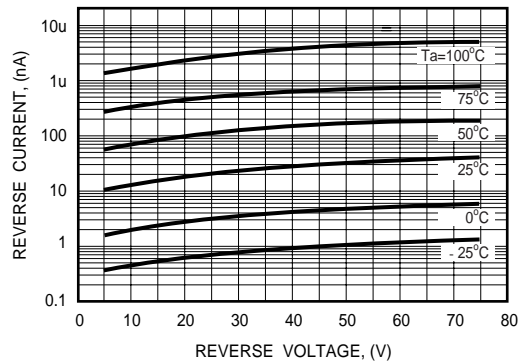


FIG. 5 - REVERSE RECOVERY TIME

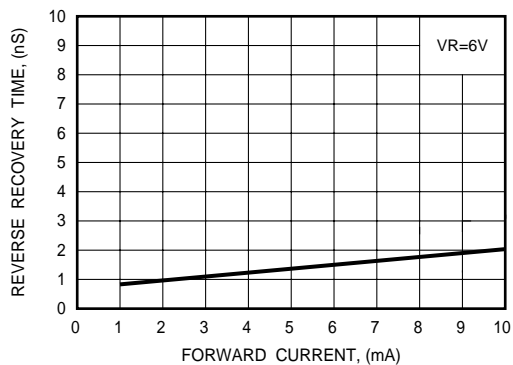


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

