



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

FAST SWITCHING DIODE ARRAY

VOLTAGE 75 Volts CURRENT 150 mAmpere

BAV16BGP-A

APPLICATION

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

FEATURE

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

CONSTRUCTION

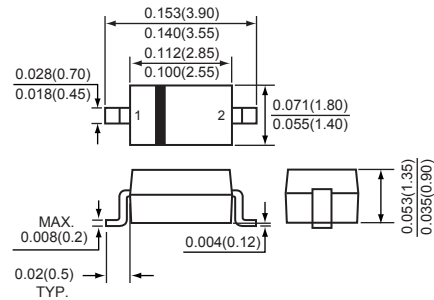
- * Silicon epitaxial planar

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 T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	BAV16BGP-A	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	V _{RM}	100	Volts
Maximum RMS Voltage	V _{RMS}	53	Volts
Maximum Repetitive Peak Reverse and DC Blocking Voltage	V _{RRM, VDC}	75	Volts
Maximum Average Forward Rectified Current	I _O	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)	C _J	2.0	pF
Maximum Reverse Recovery Time (Note 2)	T _{RR}	4.0	nSec
Thermal Resistance Junction to Ambient (Note 3)	R _{θJA}	625	°C/W
Maximum Operating and Storage Temperature Range	T _{J, TSTG}	-65 to +150	°C

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

CHARACTERISTICS	SYMBOL	BAV16BGP-A	UNITS
Maximum Instantaneous Forward Voltage	@I _F =1.0mA	0.715	Volts
	@I _F =10mA	0.855	
	@I _F =50mA	1.00	
	@I _F =150mA	1.25	
Maximum Average Reverse Current	@V _R =20V	25	nAmps
	@V _R =75V	1.0	uAmps
	@V _R =25V, T _J =150°C	30	uAmps
	@V _R =75V, T _J =150°C	50	uAmps

- 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-A)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

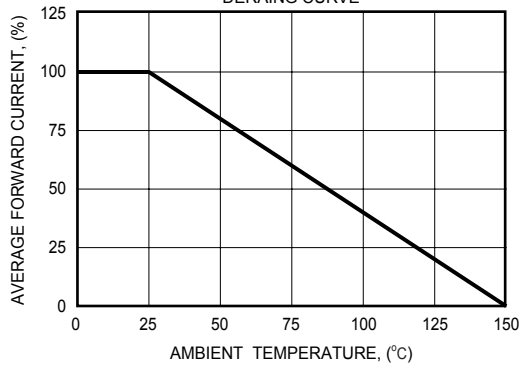


FIG. 2 - FORWARD CHARACTERISTICS

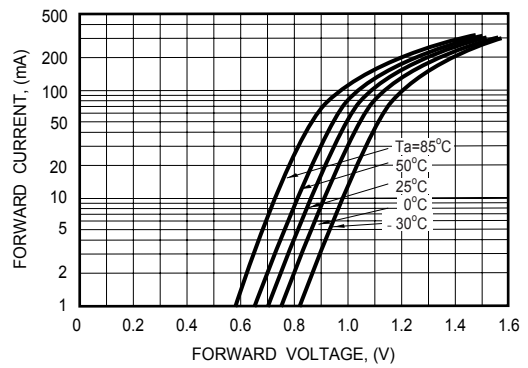


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

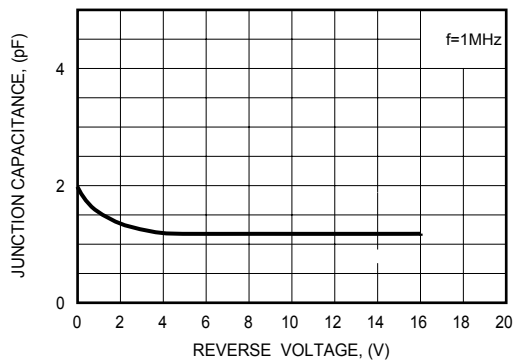


FIG. 4 - REVERSE CHARACTERISTICS

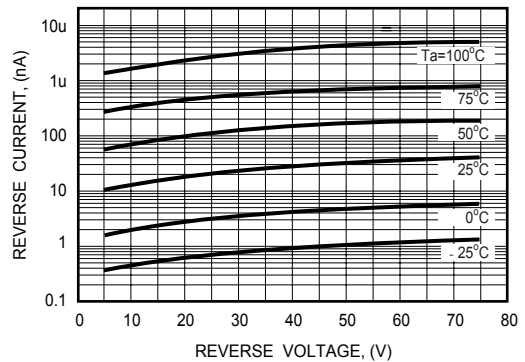


FIG. 5 - REVERSE RECOVERY TIME

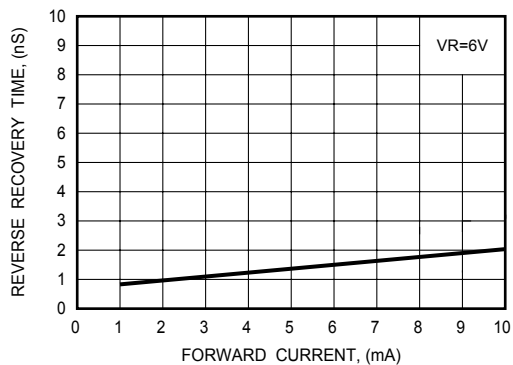
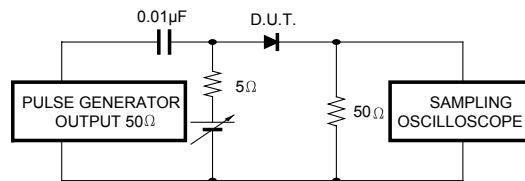
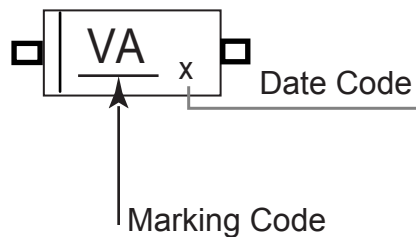


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT



The Marking and Part No. for BAV16BGP-A (SOD-123)


Marking:



Date Code Standard (二年1個週期)

Date Code	A	B	C	D	E	F	G	H	J	K	L	M
2015Year	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT	NOV.	DEC.

Date Code	N	P	Q	R	S	T	U	V	W	X	Y	Z
2014Year	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT	NOV.	DEC.

CUSTOMER :	APPROVED :	 CHENMKO LTD.
APPROVED :	CHECKED :	
CHECKED :	DRAWN :	