



# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT GLASS PASSIVATED FAST RECOVERY SILICON RECTIFIER

VOLTAGE RANGE 50 - 1000 Volts CURRENT 2.0 Amperes

**FBM21PT**

**THRU**

**FBM27PT**

Lead free devices

### FEATURES

- \* Low leakage current
- \* Ideal for surface mounted applications
- \* Metallurgically bonded construction
- \* Fast recovery times for high efficiency
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Glass passivated junction
- \* High temperature soldering guaranteed : 260°C/10 seconds at terminals

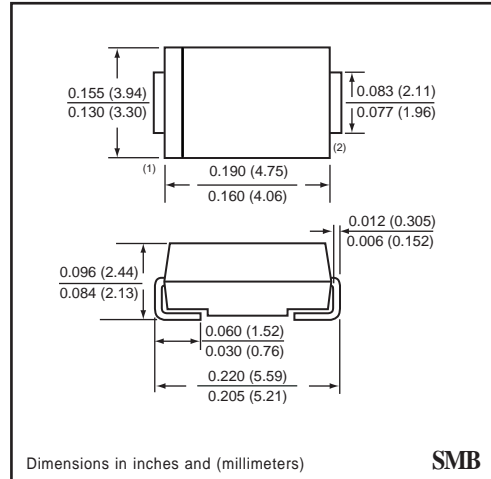
### MECHANICAL DATA

Case: JEDEC SMA molded plastic

Polarity: Indicated by cathode band



SMB



SMB

### 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	FBM21PT	FBM22PT	FBM23PT	FBM24PT	FBM25PT	FBM26PT	FBM27PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	Vdc	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current TL = 90°C	Io	2.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	60							Amps
Typical Junction Capacitance (Note 1)	CJ	40							pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150							°C

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

CHARACTERISTICS	SYMBOL	FBM21PT	FBM22PT	FBM23PT	FBM24PT	FBM25PT	FBM26PT	FBM27PT	UNITS
Maximum Instantaneous Forward Voltage at 2.0 A DC	VF	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage at TA = 25°C	IR	5.0							uAmps
Maximum Full Load Reverse Current Average, Full Cycle at TA = 55°C		100							uAmps
Maximum Reverse Recovery Time (Note 2)	trr	150			250		500		nSec

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts  
2. Test Conditions : IF = 0.5 A, IR = -1.0 A, IRR = -0.25 A

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# RATING CHARACTERISTIC CURVES ( FBM21PT THRU FBM27PT )

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

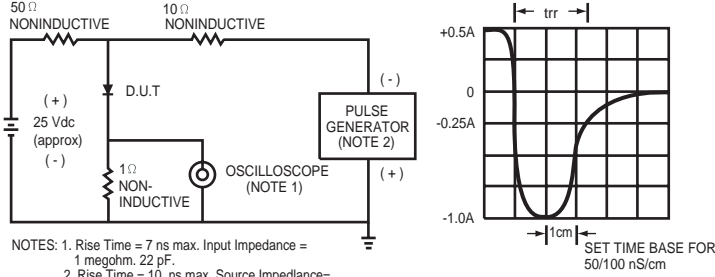


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

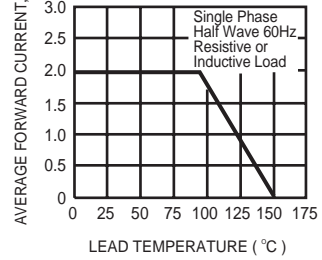


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

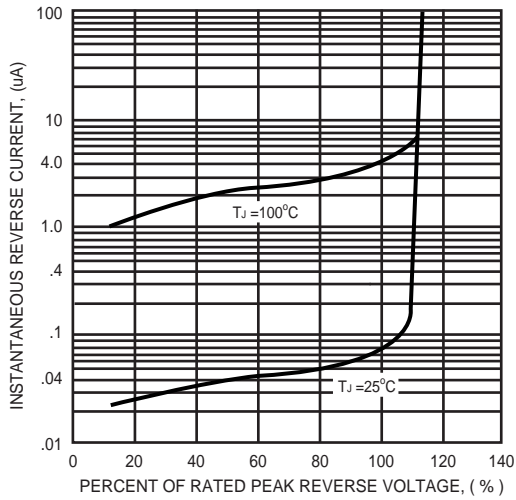


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

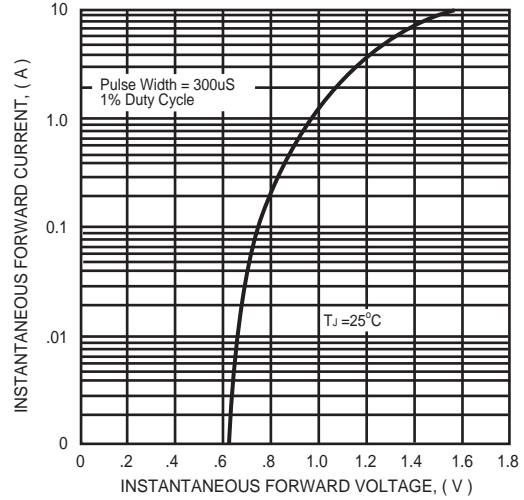


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

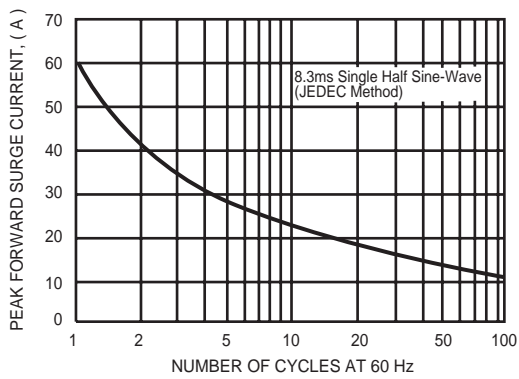


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

