



CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT GLASS PASSIVATED
FAST RECOVERY SILICON RECTIFIER**

VOLTAGE RANGE 50 - 1000 Volts CURRENT 3.0 Amperes

FBM31PT

THRU

FBM37PT

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 SMB molded plastic

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

Polarity: Indicated by cathode band

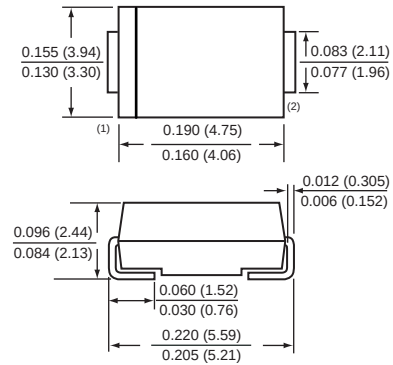
Weight: 0.003 ounces, 0.093 gram

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%.



SMB



SMB

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

RATINGS	SYMBOL	FBM31PT	FBM32PT	FBM33PT	FBM34PT	FBM35PT	FBM36PT	FBM37PT	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	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	90							Amps
Typical Junction Capacitance (Note 1)	CJ	65							pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150							°C

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

CHARACTERISTICS	SYMBOL	FBM31PT	FBM32PT	FBM33PT	FBM34PT	FBM35PT	FBM36PT	FBM37PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC	VF	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage at Ta = 25°C	IR	10							uAmps
Maximum Full Load Reverse Current Average, Full Cycle at Ta = 55°C		150							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 (FBM31PT THRU FBM37PT)

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

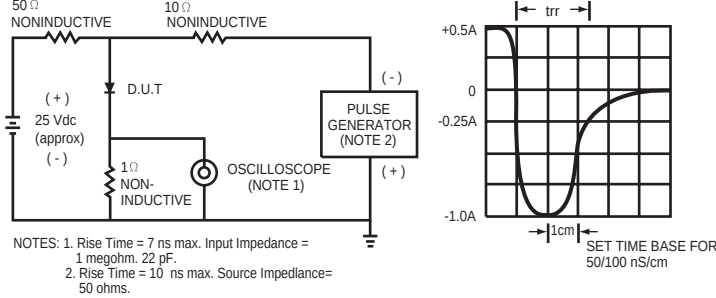


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

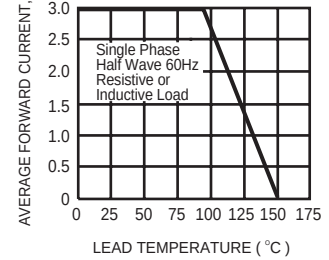


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

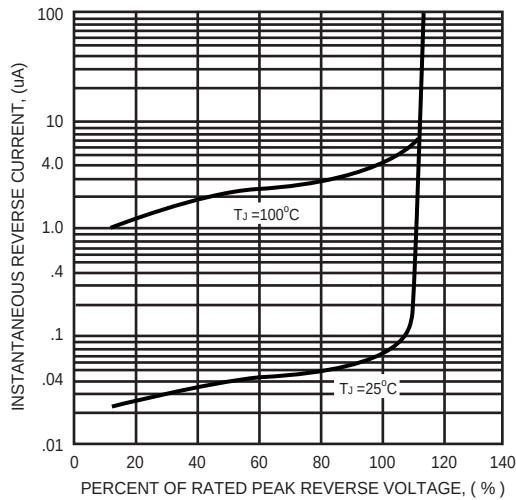


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

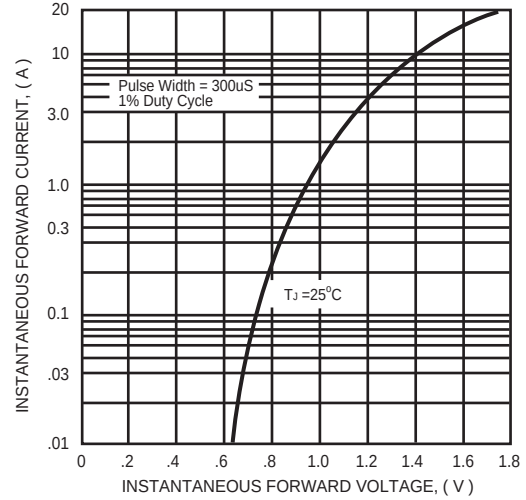


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

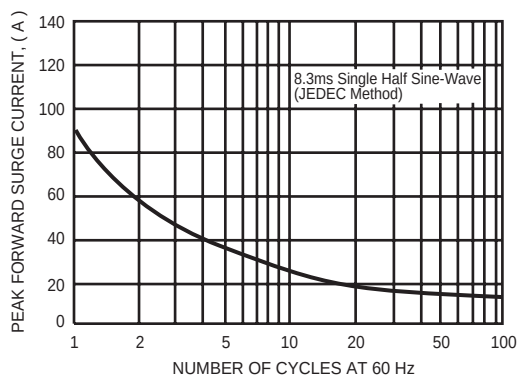


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

