

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 1.0 Ampere

FEATURES

- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

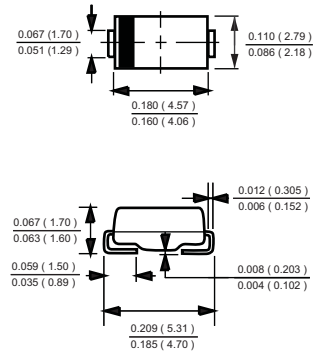
MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.057 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Resistive or inductive load.

SMAL



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

RATINGS	SYMBOL	FM120L	FM130L	FM140L	FM150L	FM160L	FM180L	FM1100L	FM1150L	FM1200L	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	1.0									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40									Amps
Typical Current Square Time	I^2T	6.6									A ² S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	85									°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	25									°C/W
Typical Junction Capacitance (Note 2)	C_J	110									pF
Operating Temperature Range	T_J	150									°C
Storage Temperature Range	T_{STG}	-55 to + 150									°C

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

CHARACTERISTICS		SYMBOL	FM120L	FM130L	FM140L	FM150L	FM160L	FM180L	FM1100L	FM1150L	FM1200L	UNITS	
Maximum Instantaneous Forward Voltage at 1.0A DC		V _F	.55			.70			.85			Volts	
Maximum Average Reverse Current	@T _A = 25°C	I _R	0.2										mA
at Rated DC Blocking Voltage	@T _A = 100°C		2										mA

- NOTES : 1. Thermal Resistance : Mounted on PCB.
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 3. Also available in SMBL.
 4. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (FM120L THRU FM1200L)

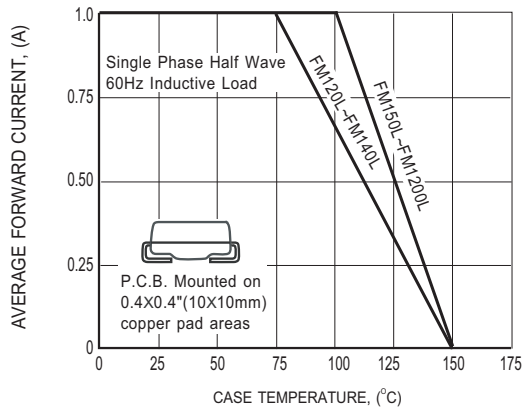


FIG.1 TYPICAL FORWARD CURRENT
DERATING CURVE

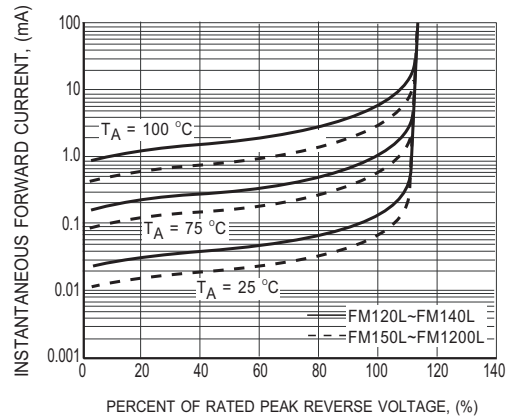


FIG.2 TYPICAL REVERSE
CHARACTERISTICS

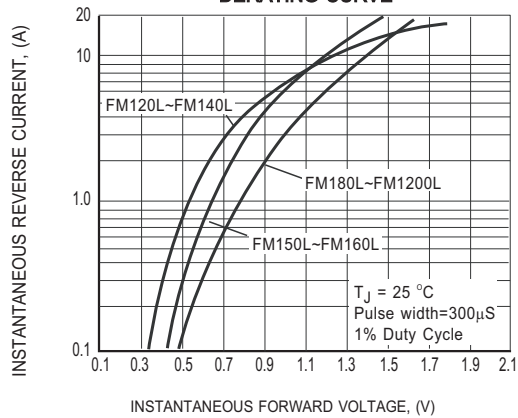


FIG.3 TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

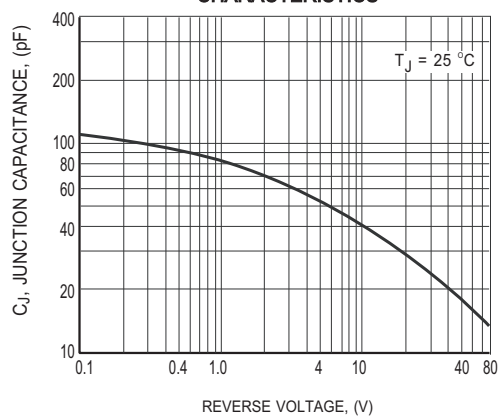


FIG.4 TYPICAL JUNCTION CAPACITANCE

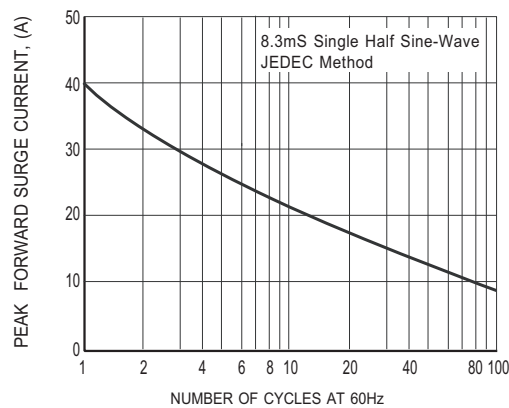
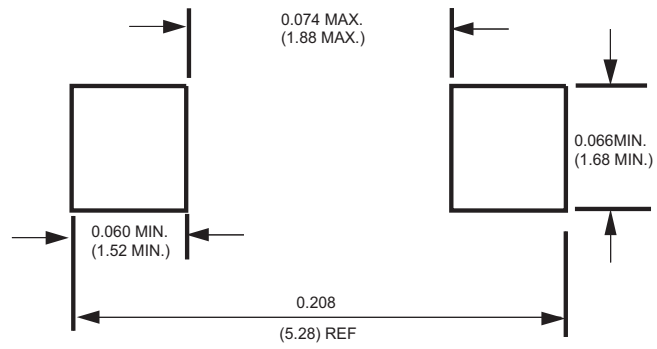


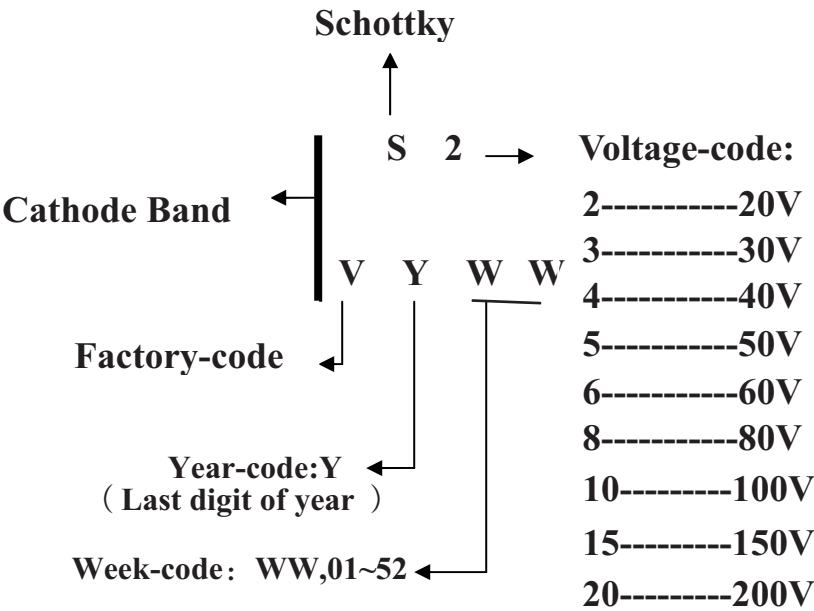
FIG.5 MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMA	-T	1,500	6,000	---	---	178	390*205*310	48,000	8.40
SMA	-W	5,000	10,000	---	---	330	360*355*360	80,000	14.20

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