RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

FM801P THRU FM807P

SURFACE MOUNT GLASS PASSIVATED SILICON RECTIFIER

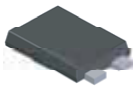
VOLTAGE RANGE 50 to 1000 Volts CURRENT 8.0 Ampere

FEATURES

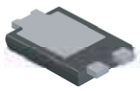
* Ideal for SMT Mounting
* High Forward Surge Capability
* Low Forward Voltage Drop
* Excellent High Temperature Stability

MECHANICAL DATA

* Epoxy: Device has UL flammability classification 94V-O
* Weight: 0.086 grams (approximate)
* Halogen-free

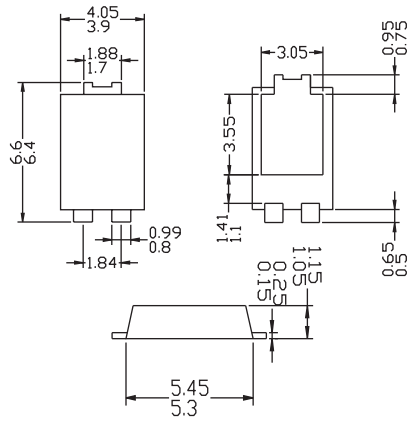


Top View



Bottom View

DO-277



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

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

RATINGS	SYMBOL	FM801P	FM802P	FM803P	FM804P	FM805P	FM806P	FM807P	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T_C =95 °C	I_O	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							Amps
Current Squarad Time	I^2t	165.9							A^2/Sec
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	FM801P	FM802P	FM803P	FM804P	FM805P	FM806P	FM807P	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC		V_F	1.1							Volts
Maximum Average Reverse Current	@T_A = 25°C	I_R	5							uAmps
at Rated DC Blocking Voltage	@T_A = 100°C		150							

NOTES : 1. Thermal Resistance : Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
4. Test Conditions: I_F= 0.5A, I_R= -1.0A, I_{RR}= -0.25A.
5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

2018-03
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RATING AND CHARACTERISTICS CURVES (FM801P THRU FM807P)

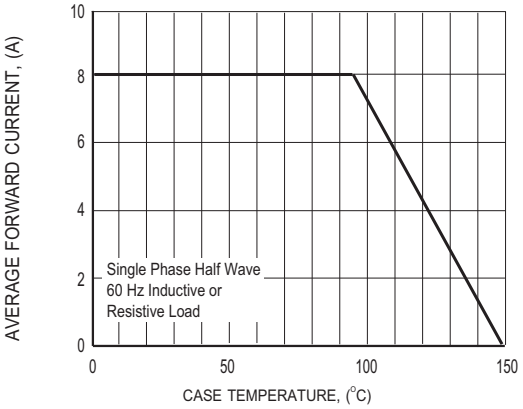


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

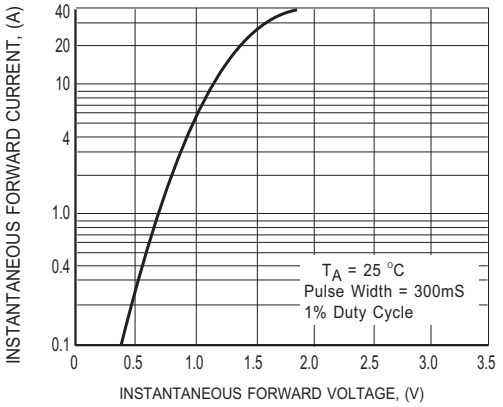


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

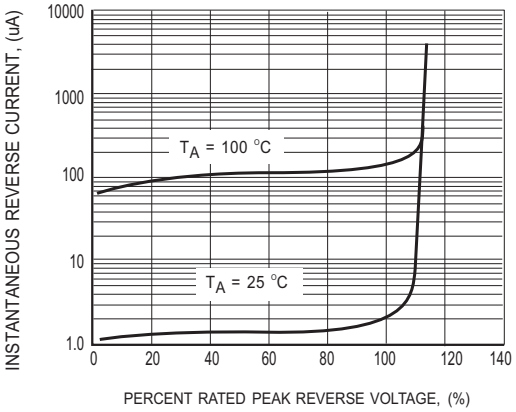


FIG.3 TYPICAL REVERSE CHARACTERISTICS

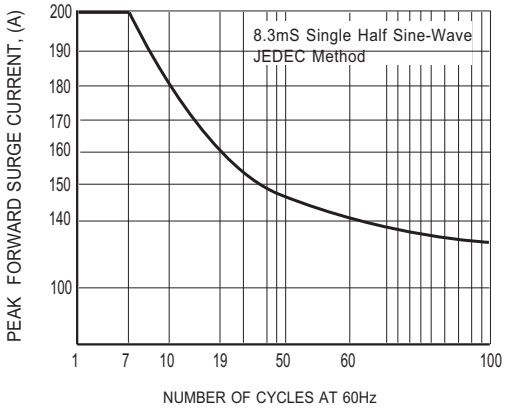
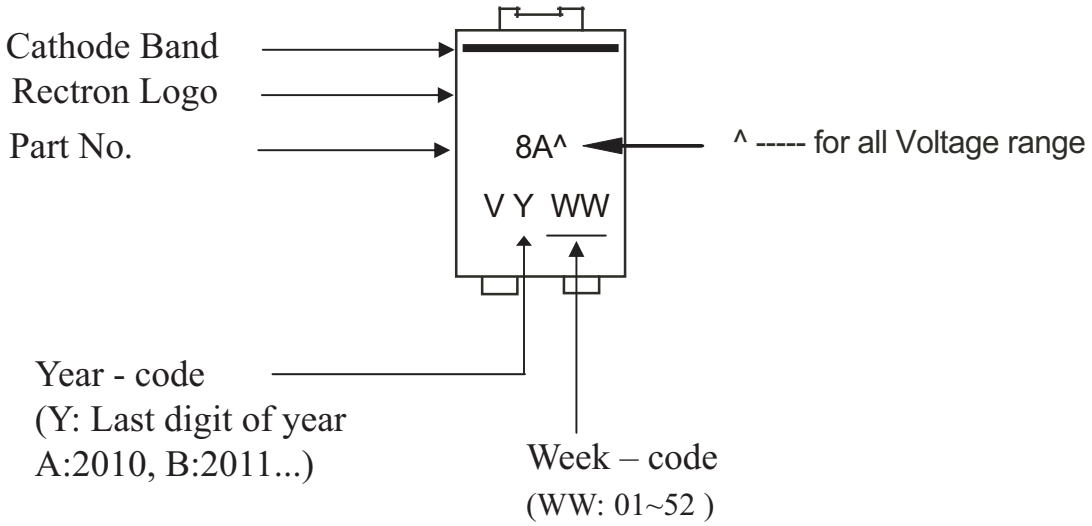
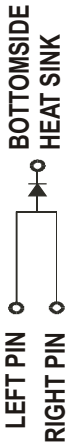


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

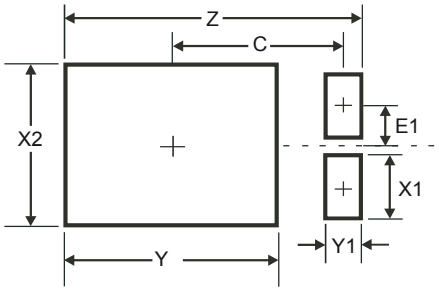
Marking Description





Note: Pins Left & Right must be electrically connected at the printed circuit board.

Recommendation of Mounting Pad Layout



Dimensions	Value (in mm)
Z	6.6
X1	1.4
X2	3.6
Y1	0.8
Y	4.7
C	3.87
E1	0.9

Dimensions in millimeters

REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES-FLAT MELF (DO-277)

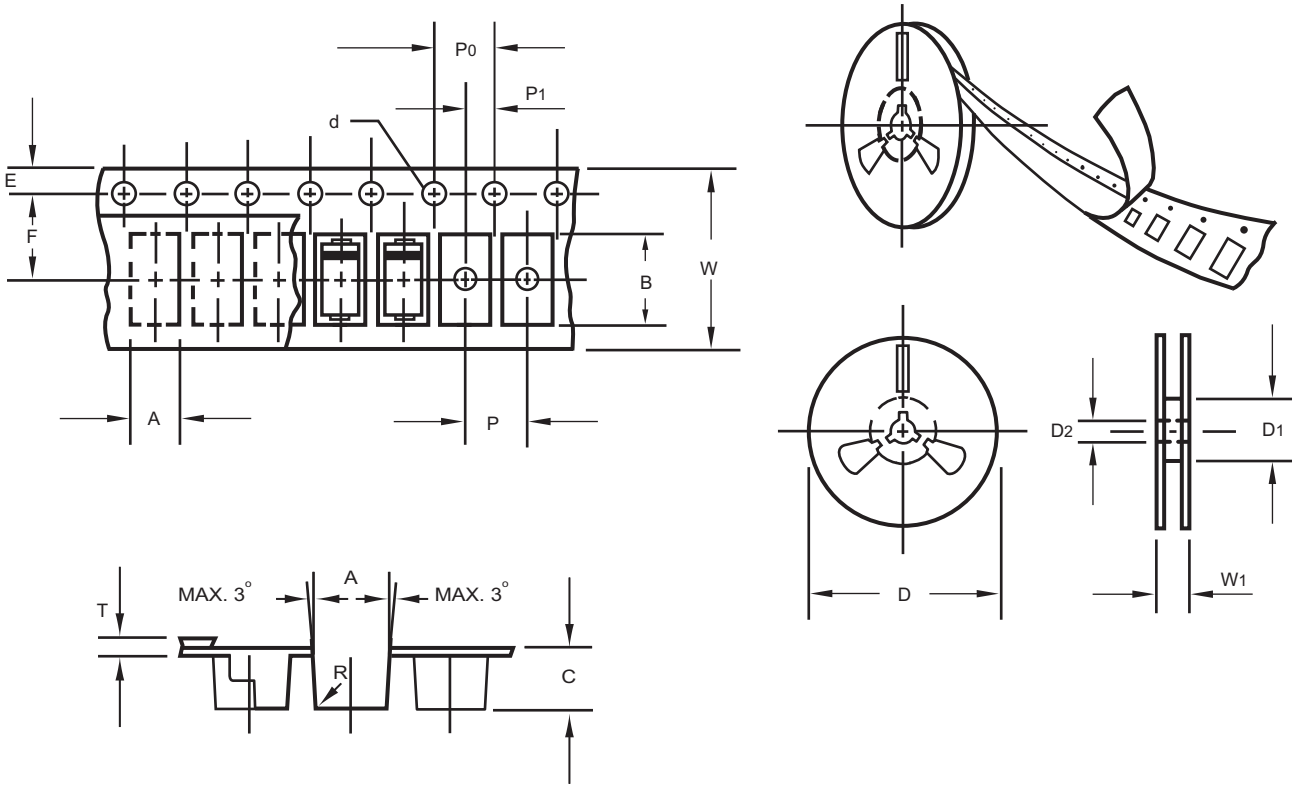
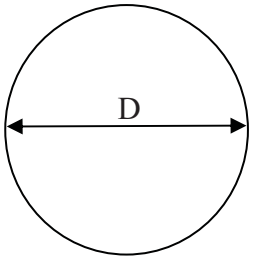


Fig.: Configuration of FLAT MELF TAPING
(DO-277)

ITEM	SYMBOL	DO-277 mm(inch)
Carrier width	A	5.45 ± 0.1(0.179 ± 0.004)
Carrier length	B	6.80 ± 0.1 (0.268 ± 0.004)
Carrier depth	C	1.33 ± 0.1 (0.052 ± 0.004)
Sprocket hole	d	1.5 ± 0.1 (0.059 ± 0.004)
Reel outside diameter	D	178 ± 2.0 (7.0 ± 0.079)
Reel inner diameter	D_1	50 Min.
Feed hole diameter	D_2	13 ± 0.5 (0.512 ± 0.020)
Stroket hole position	E	1.75 ± 0.1 (0.069 ± 0.004)
Punch hole position	F	5.50 ±0.05 (0.217 ±0.002)
Punch hole pitch	P	8.0 ± 0.1 (0.315 ± 0.004)
Sprocket hole pitch	P_0	4.0 ± 0.1 (0.157 ± 0.004)
Embossment center	P_1	2.00 ±0.05 (0.079± 0.002)
Totall tape thickness	T	0.28± 0.02 (0.011 ± 0.001)
Tape width	W	12.00^{+}0.3 (0.472 + 0.012) 12.00 − 0.1 (0.472 − 0.004)
Reel width	W_1	16.8 ± 2.0 (0.661 ± 0.079)

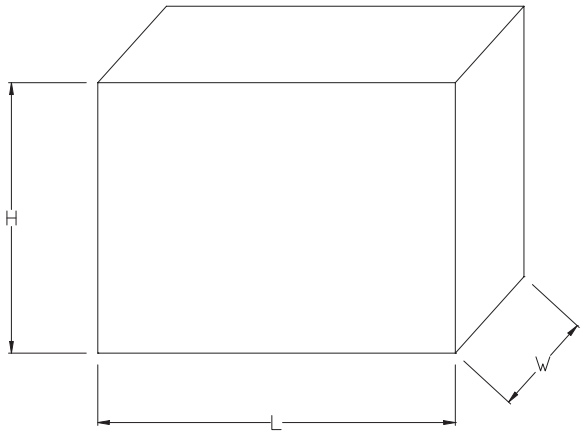
Note: 1.Devices are packed in accordance with EIA standard RS-481-A and specification given above.
2.Available on 7 inch (1500 ct.) or 13 inch (5000 ct.) diameter reels.

1. REEL



Packing Code	D (mm)
-T	178
-W	330

2. CARTON



Packing Code	L (mm)	W (mm)	H (mm)
-T	390	205	310
-W	355	360	350

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)
DO-277	-T/W	5,000	10,000	---	---	330	360*355*360	80,000	15.29

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