

GLASS PASSIVATED SILICON RECTIFIER

VOLTAGE 800 Volts CURRENT 8.0 Amperes

FEATURES

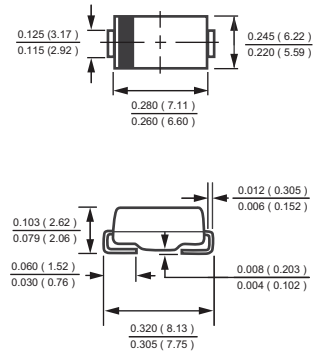
- * Low leakage
- * Low Forward voltage drop
- * High current capability
- * High surge capability
- * High reliability
- * Halogen-free
- * P/N suffix V means AEC-Q101 qualified, e.g:FM806CV

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * Case: Molded plastic



DO-214AB



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 (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	FM806C	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	Volts
Maximum RMS Voltage	V_{RMS}	560	Volts
Maximum DC Blocking Voltage	V_{DC}	800	Volts
Maximum Average Forward Rectified Current at $T_C=95^{\circ}C$	I_O	8.0	Amps
Peak Forward Surge Current 10 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300	Amps
Typical Current Squared Time	I^2t	373.5	A^2/Sec
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	15	$^{\circ}C/W$
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	8.9	$^{\circ}C/W$
Operating Temperature Range	T_J	-55 to + 150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to + 150	$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	FM806C	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	V_F	1.05	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^{\circ}C$	0.3	μA
	@ $T_A = 150^{\circ}C$	500	μA

NOTE : 1. * ROHS compliant*
2. Thermal Resistance : Mounted on PCB.

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RATING AND CHARACTERISTICS CURVES (FM806C)

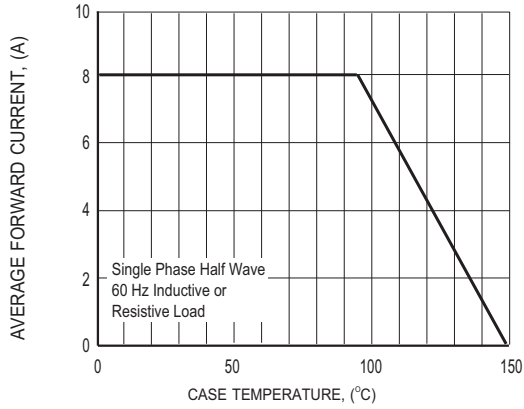


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

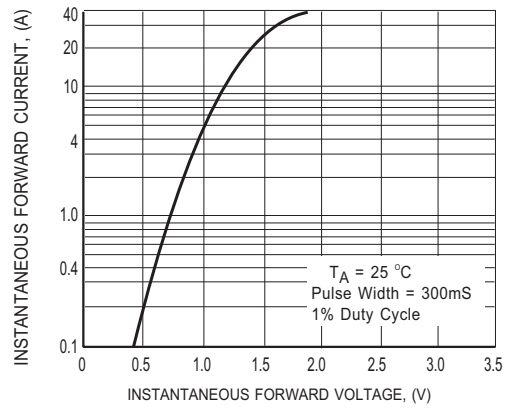


FIG.2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

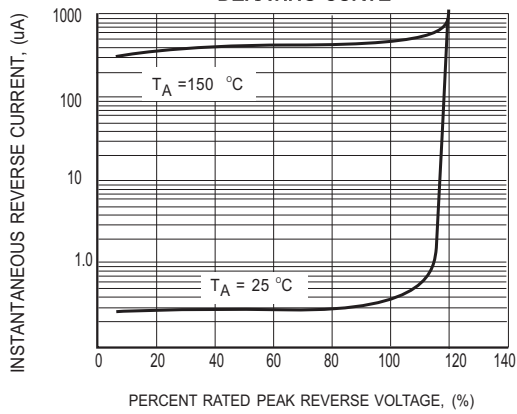


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

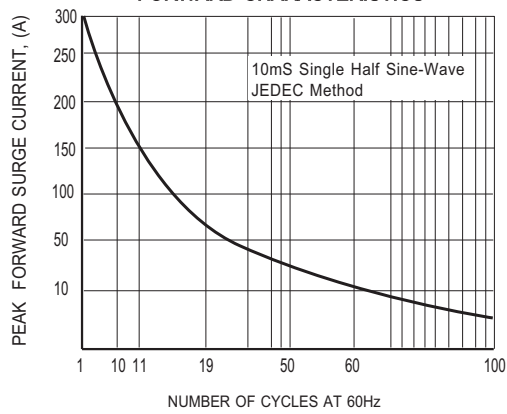
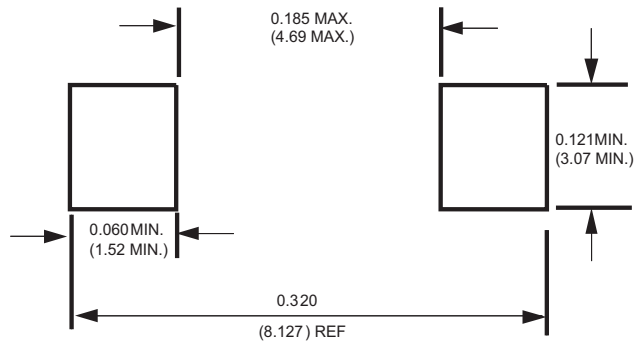


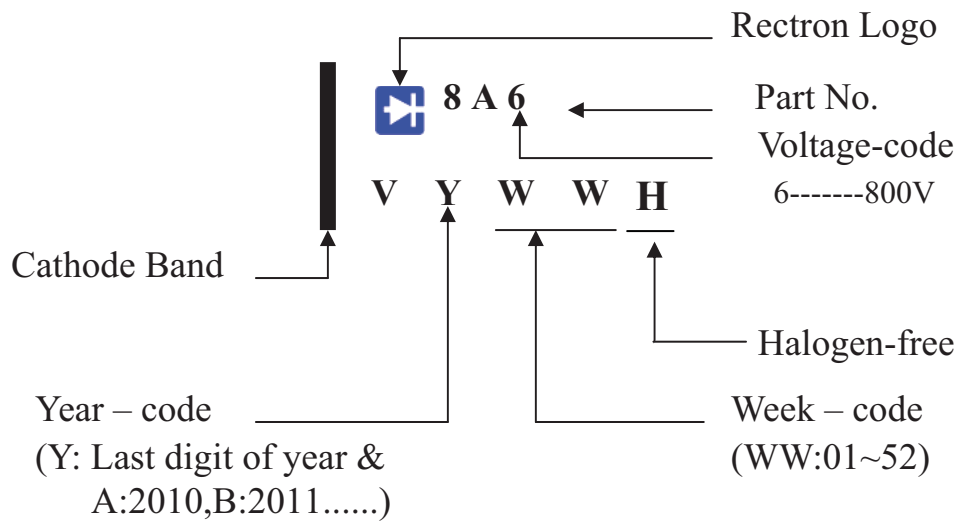
FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES-FLAT MELF (SMA/SMB/SMC)

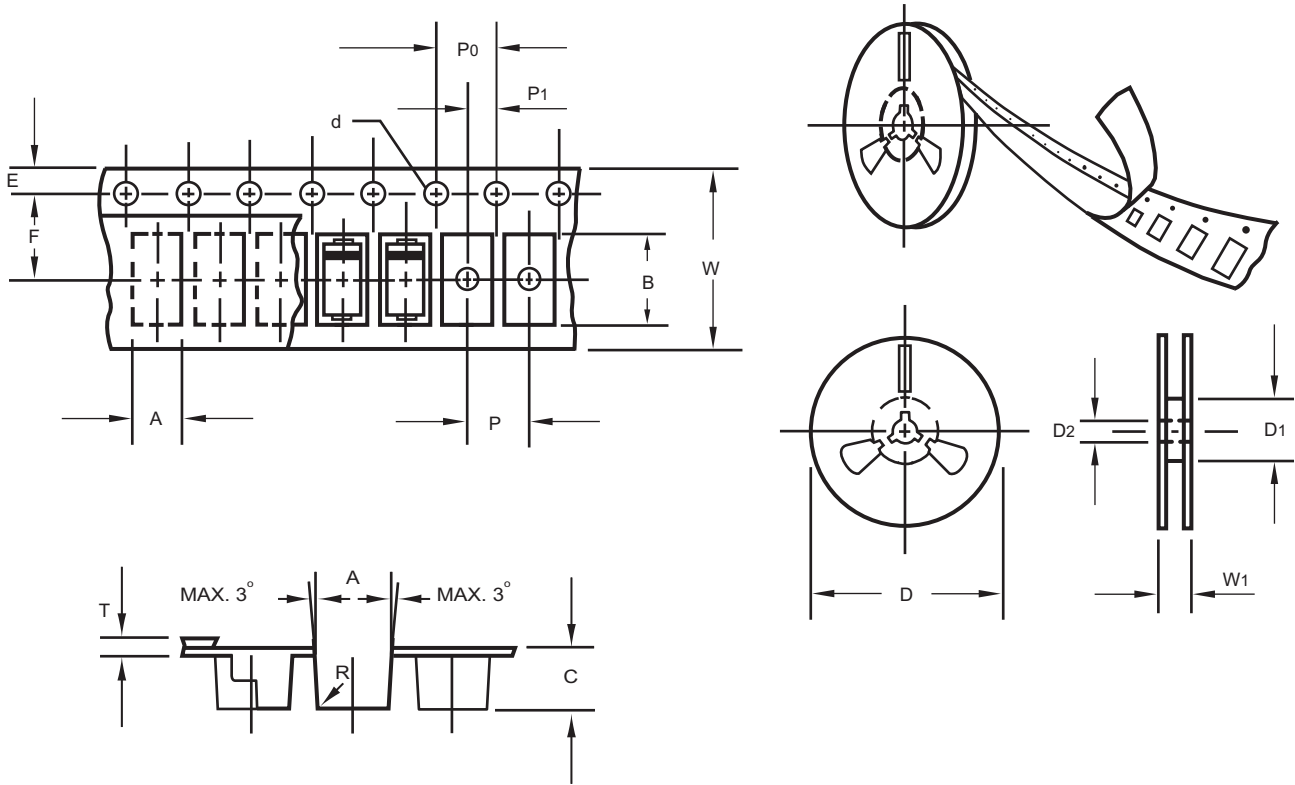


Fig.: Configuration of FLAT MELF TAPING
(SMA/SMB/SMC)

ITEM	SYMBOL	DO214AC (SMA) mm(inch)	DO214AA (SMB) mm(inch)	DO214AB (SMC) mm(inch)
Carrier width	A	2.6 ± 0.15 (0.102 ± 0.006)	3.65 ± 0.1 (0.144 ± 0.004)	6.0 ± 0.1 (0.236 ± 0.004)
Carrier length	B	5.15 ± 0.15 (0.203 ± 0.006)	5.69 ± 0.1 (0.224 ± 0.004)	8.30 ± 0.1 (0.327 ± 0.004)
Carrier depth	C	2.3 ± 0.15 (0.091 ± 0.006)	2.67 ± 0.1 (0.105 ± 0.004)	2.5 ± 0.1 (0.098 ± 0.004)
Sprocket hole	d	1.5 ± 0.1 (0.059 ± 0.004)	1.5 ± 0.1 (0.059 ± 0.004)	1.5 ± 0.1 (0.059 ± 0.004)
Reel outside diameter	D	178 ± 2.0 (7.0 ± 0.079)	178 ± 2.0 (7.0 ± 0.079)	178 ± 2.0 (7.0 ± 0.079)
Reel inner diameter	D1	50 Min.	50 Min.	50 Min.
Feed hole diameter	D2	13 ± 0.5 (0.512 ± 0.020)	13 ± 0.5 (0.512 ± 0.020)	13 ± 0.5 (0.512 ± 0.020)
Strocket hole position	E	1.5 ± 0.1 (0.059 ± 0.004)	1.5 ± 0.1 (0.059 ± 0.004)	1.5 ± 0.1 (0.059 ± 0.004)
Punch hole position	F	5.65 ± 0.05 (0.222 ± 0.002)	5.65 ± 0.05 (0.222 ± 0.002)	7.65 ± 0.05 (0.301 ± 0.002)
Punch hole pitch	P	4.0 ± 0.1 (0.157 ± 0.004)	8.0 ± 0.1 (0.315 ± 0.004)	8.0 ± 0.1 (0.315 ± 0.004)
Sprocket hole pitch	P0	4.0 ± 0.1 (0.157 ± 0.004)	4.0 ± 0.1 (0.157 ± 0.004)	4.0 ± 0.1 (0.157 ± 0.004)
Embossment center	P1	2.0 ± 0.1 (0.079 ± 0.004)	2.0 ± 0.1 (0.079 ± 0.004)	4.0 ± 0.1 (0.157 ± 0.004)
Total tape thickness	T	0.30 ± 0.05 (0.012 ± 0.002)	0.6 Max.	0.6 Max.
Tape width	W	12.0 ± 0.2 (0.472 ± 0.008)	12.0 ± 0.2 (0.472 ± 0.008)	16.0 ± 0.2 (0.630 ± 0.008)
Reel width	W1	16.8 ± 2.0 (0.661 ± 0.079)	16.8 ± 2.0 (0.661 ± 0.079)	24.0 ± 2.0 (0.945 ± 0.079)

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

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)
SMC	-W/T	3,000	3,000	---	---	330	360*355*360	24,000	11.50

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