

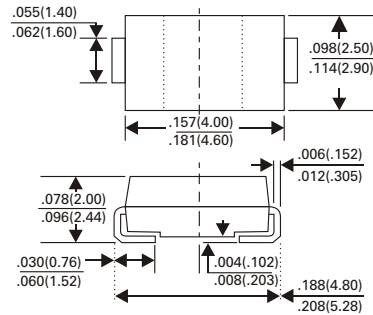
FM5817 thru FM5819

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 40 VOLTS CURRENT - 1.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low forward voltage drop
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current and surge capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering : 250°C/10 seconds at terminals

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic
 Terminals : Solder plated, solderable per MIL-STD-202, Method 208
 Polarity : Color band denotes cathode end
 Standard Package : 12mm tape (EIA STD EIA-481)
 Weight : 0.002 ounce, 0.064gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified
 Single phase, half wave, 60Hz, resistive or inductive load
 For capacitive load, derate current by 20%

	SYMBOL	FM5817	FM5818	FM5819	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current at T_L (Figure 1)	$I_{(AV)}$	1.0			Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	40			Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.45	0.5		Volts
Maximum DC Reverse Current (NOTE 1) $T_A=25^{\circ}C$ at Rated DC Blocking Voltage $T_A=100^{\circ}C$	I_R		0.5 10		mA
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$		88 28		$^{\circ}C / W$
Typical Junction Capacitance (NOTE 3)	C_J	110			pF
Storage and Operating Temperature Range	T_J T_{STG}	-55 to +150			$^{\circ}C$

NOTES :

1. Pulse test with 300 μ S PULSE WIDTH, 1% duty cycle
2. P.C.B. mounted on 0.2x0.2" (5.0x5.0mm)copper pad areas
3. Measured at 1.0MHz and applied reverse voltage of 4.0 volts

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RATING AND CHARACTERISTICS CURVES FM5817 THRU FM5819

Fig. 1 - FORWARD CURRENT DERATING CURVE

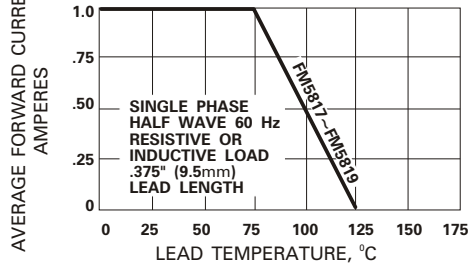


Fig. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

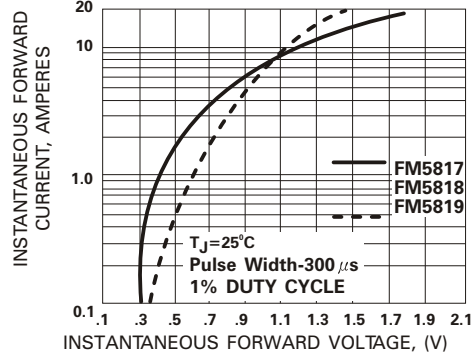


Fig. 3A - TYPICAL FORWARD CHARACTERISTICS

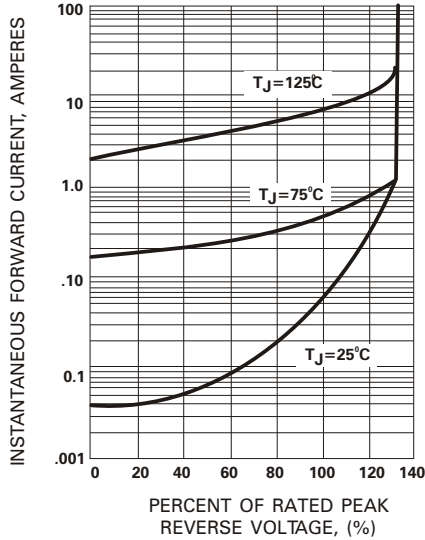


Fig. 3B - TYPICAL REVERSE CHARACTERISTICS

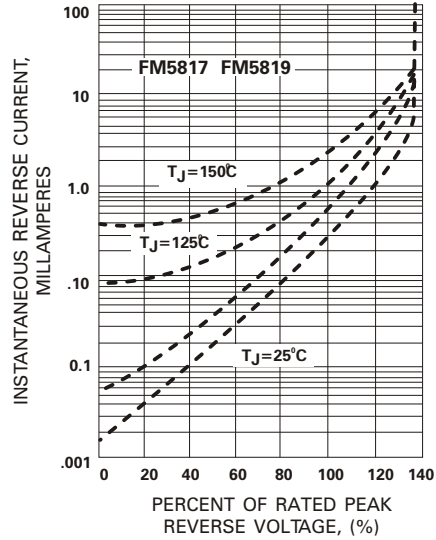


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

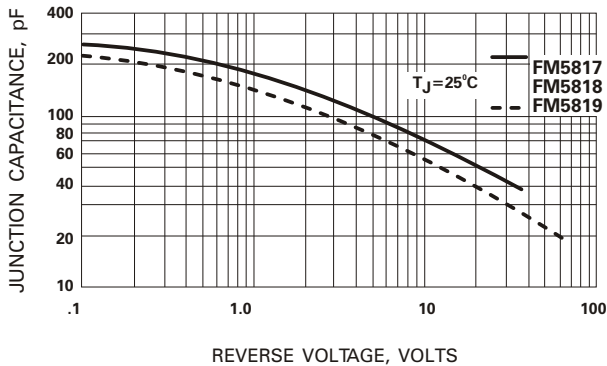


Fig. 5 - MAXIMUM NON-REPETITIVE SURGE CURRENT

