DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SM120M THRU SM1100M

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 100 Volts *CURRENT - 0.5 Ampere*

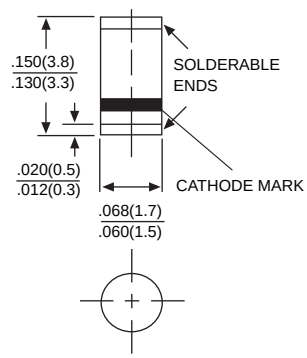
FEATURES

* High current capability
* Ideal for surface mounted applications
* Low leakage current for high efficiency

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: Solder plated solderable per MIL-STD-750, Method 2026
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.036 gram

SM-2(DO-213AA)



Dimensions in inches and (millimeters)

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	SM120M	SM130M	SM140M	SM150M	SM160M	SM180M	SM1100M	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage		V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage		V_{DC}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at T_A = 75°C		I_O	0.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	25							Amps
Maximum Instantaneous Forward Voltage at 0.5A DC		V_F	0.45	0.55	0.60	0.75		0.85		Volts
Maximum DC Reverse Current	@T_A = 25°C	I_R	1.0							mAmps
at Rated DC Blocking Voltage	@T_A = 100°C		10							
Typical Thermal Resistance (Note 1)		$R_{\theta JA}$	75							°C/W
Typical Junction Capacitance (Note 2)		C_J	110							pF
Storage Operating Temperature Range		T_J, T_{STG}	-55 to +125							°C

NOTES : 1. Thermal Resistance (Junction to Ambient), 24in^2(6.0mm^2) copper pads to each terminal.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SM120M THRU SM1100M)

FIG.1
TYPICAL FORWARD CURRENT DERATING CURVE

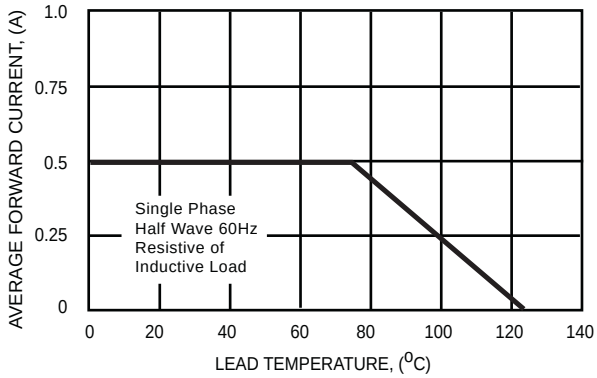


FIG.2
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

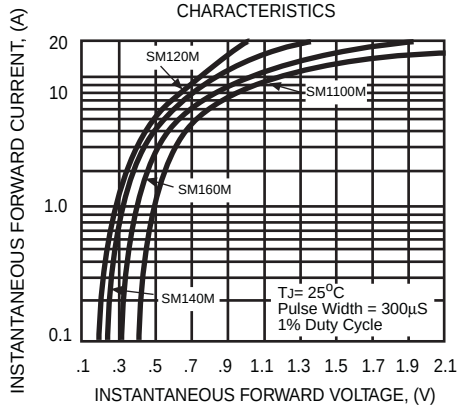


FIG.3
TYPICAL REVERSE CHARACTERISTICS

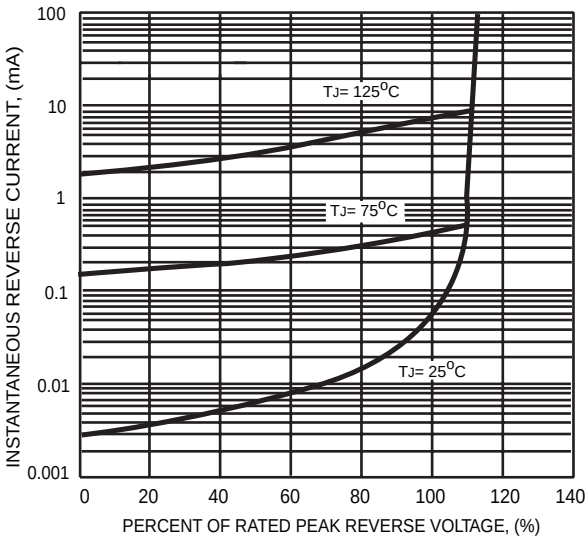


FIG.4
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

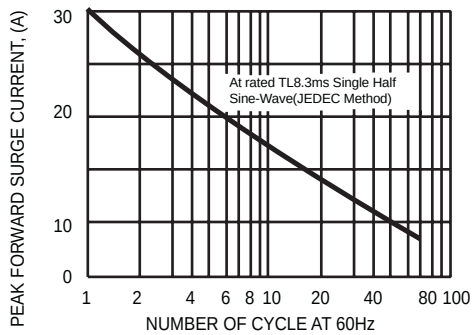
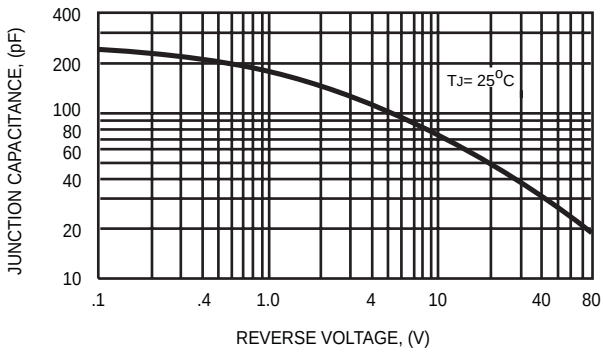


FIG.5
TYPICAL JUNCTION CAPACITANCE



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