WILLAS

RoHS COMPLIANT

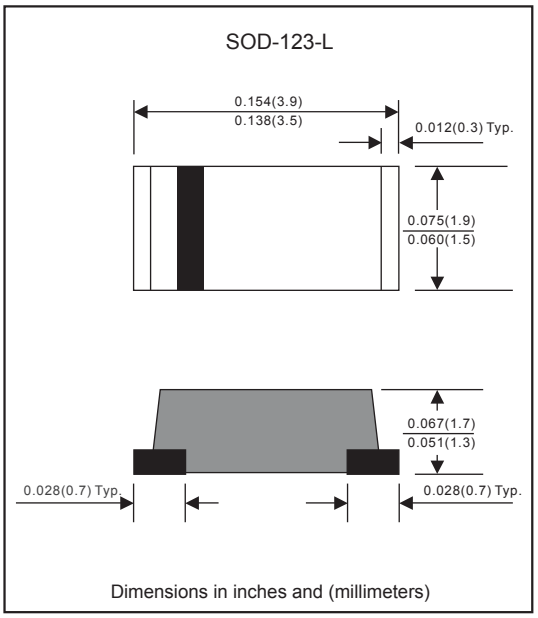
FM120-M THRU FM1200-M

Pb Free Product

1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS -20V- 200V
SOD-123-L PACKAGE

FEATURES

* Batch process design,excellent power dissipation offers better reverse leakage current and thermal resistance.
* Low profile surface mounted application in order to optimize board space.
* Low power loss,high efficiency.
* High current capability, low forward voltage drop.
* High surge capability.
* Ultra high-speed switching.
* Lead-free parts meet environmental standars of MIL-STD-19500/228
* RoHS product for packing code suffix "G"
  Halogen free product for packing code suffix "H"



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, SOD-123-L
Epoxy: UL 94V-O rate flame retardant
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026.
Mounting position: Any
Weight: Approximated 0.018 gram.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATINGS	SYMBOL	FM120-M	FM130-M	FM140-M	FM150-M	FM160-M	FM180-M	FM1100-M	FM1150-M	FM1200-M	UNIT
Marking Code		12	13	14	15	16	18	10	115	120	
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	I_O	1.0									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30									Amps
Typical Thermal Resistance (Note 2)	$R_{\Theta JA}$	98									℃/W
Typical Junction Capacitance (Note 1)	C_J	120									PF
Operating Temperature Range	T_J	-55 to +125				-55 to +150					℃
Storage Temperature Range	TSTG	-55 to +150									℃

CHARACTERISTICS		SYMBOL	FM120-M	FM130-M	FM140-M	FM150-M	FM160-M	FM180-M	FM1100-M	FM1150-M	FM1200-M	UNIT
Maximum Forward Voltage at 1.0A DC		V_F	0.50			0.70		0.85		0.92		Volts
Maximum Average Reverse Current at	@TA=25℃	I_R	0.5									mAmps
Rated DC Blocking Voltage	@TA=125℃		10									

NOTES:
1- Measured at 1 MHZ and applied reverse voltage of 4.0 VDC.
2- Thermal Resistance From Junction to Ambient

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RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

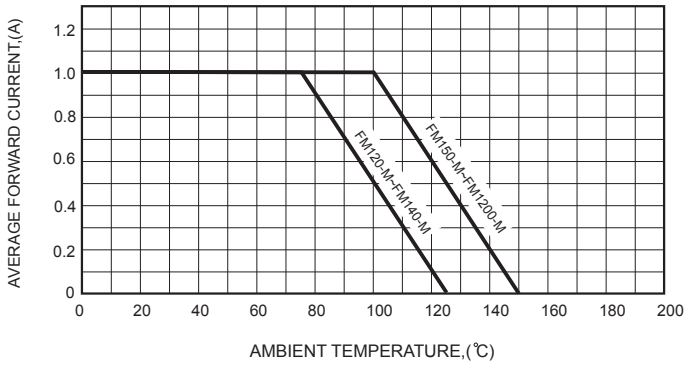

FIG.2-TYPICAL FORWARD CHARACTERISTICS

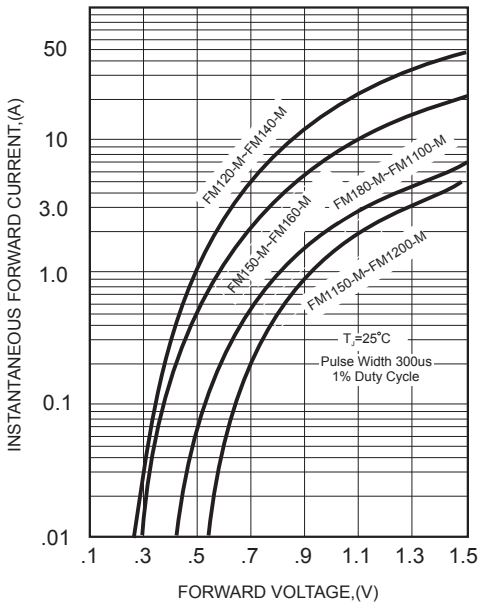

FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

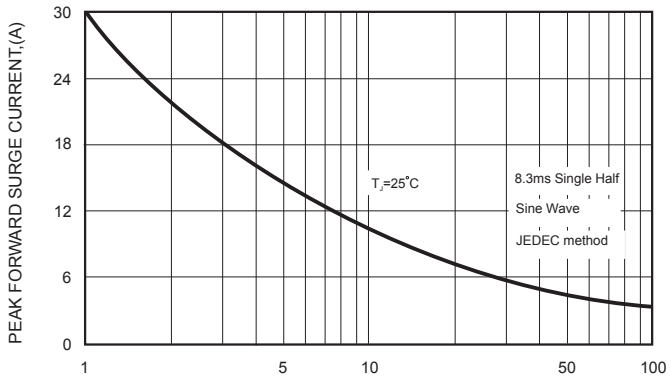

FIG.4-TYPICAL JUNCTION CAPACITANCE

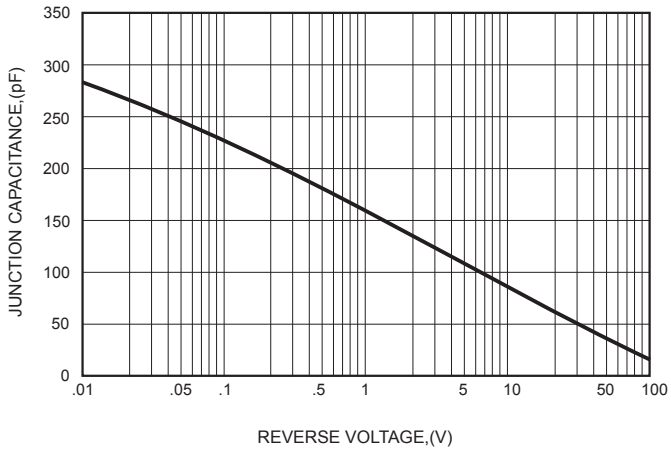

FIG.5 - TYPICAL REVERSE CHARACTERISTICS