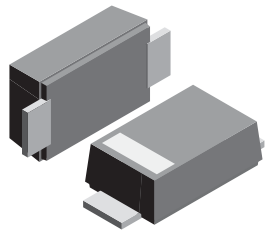
M1F - M7F

SURFACE MOUNT SILICON RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V
CURRENT: 1.0 A



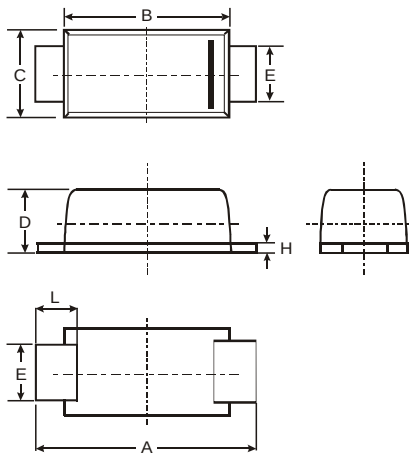
Features

- Diffused junction
- For surface mounted applications
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0

Mechanical Data

- Case: SMAF,Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity:Color band denotes cathode end
- Mounting Position:Any
- Weight:0.0018 ounce, 0.064 grams

RoHS COMPLIANT



SMAF			
Dim	**Min**	**Max**	**Typ**
A	4.75	4.85	4.80
B	3.68	3.72	3.70
C	2.57	2.63	2.60
D	0.097	1.03	1.00
E	1.38	1.42	1.40
H	0.13	0.17	0.15
L	0.63	0.67	0.65
All Dimensions in mm			

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	**Symbol**	M1F	M2F	M3F	M4F	M5F	M6F	M7F	**Unit**
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_L=100 ℃	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at 1.0A DC	V_F	1.1							V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	5.0 100							uA
Typical Junction Capacitance (Note1)	C_J	10							pF
Typical Thermal Resistance (Note2)	R_{JC}	30							℃/W
Operating Temperature Range	T_J	-55 to +125							℃
Storage Temperature Range	T_{STG}	-55 to +125							℃

NOTES:1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance junction to lead.

FIG. 1 - FORWARD CURRENT DERATING CURVE

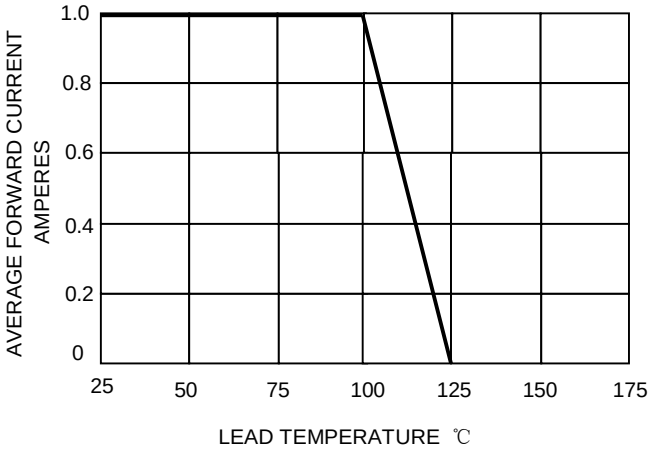
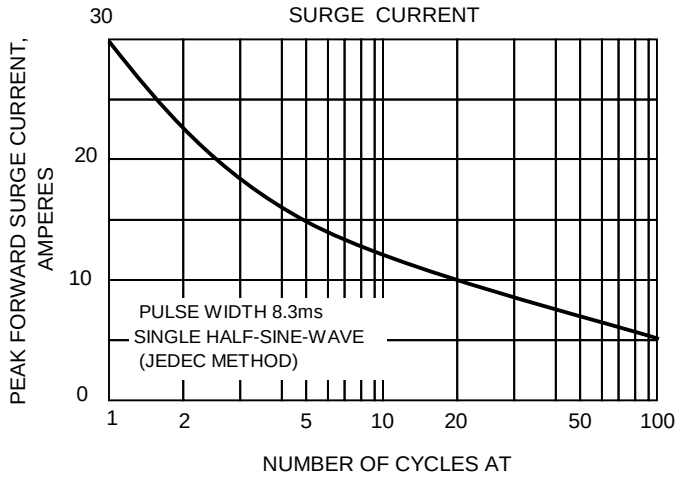


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT



SINGLE PHASE HALF WAVE 60Hz
RESISTIVE OR INDUCTIVE LOAD

FIG.3-TYPICAL FORWARD CHARACTERISTICS

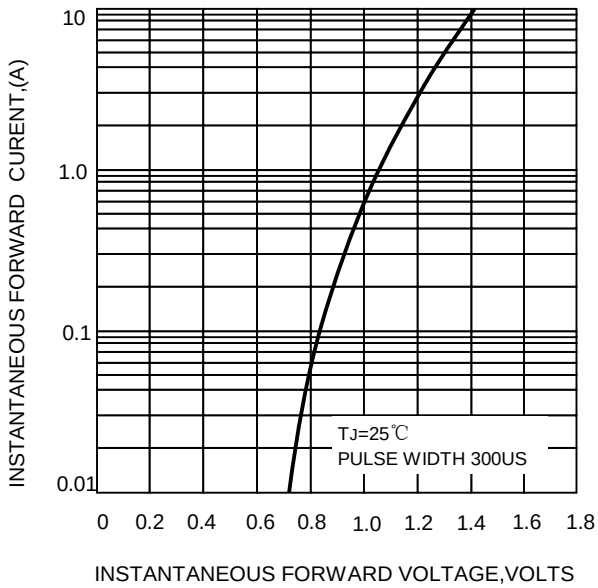


FIG.4-TYPICAL REVERSE CHARACTERISTICS