

# M1 - M7

**PRV : 50 - 1000 Volts**

**Io : 1.0 Ampere**

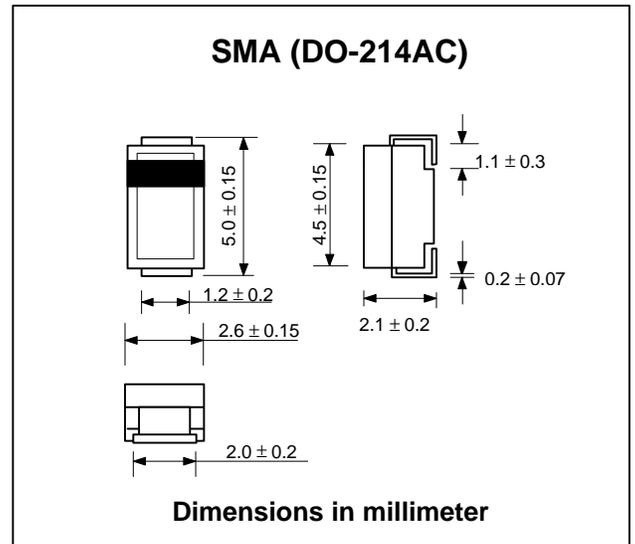
## FEATURES

- For surface mounted applications
- Glass passivated junction
- Low profile package
- Built-in strain relief, ideal for automated placement
- Plastic package has underwrites laboratory flammability Classification 94V-0
- High temperature soldering guaranteed:  
250 /10 second at terminals

## MECHANICAL DATA

- Case: JEDED SMA (DO-214AC) molded plastic
- Terminals: Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.002ounce, 0.064 gram

# SURFACE MOUNT RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

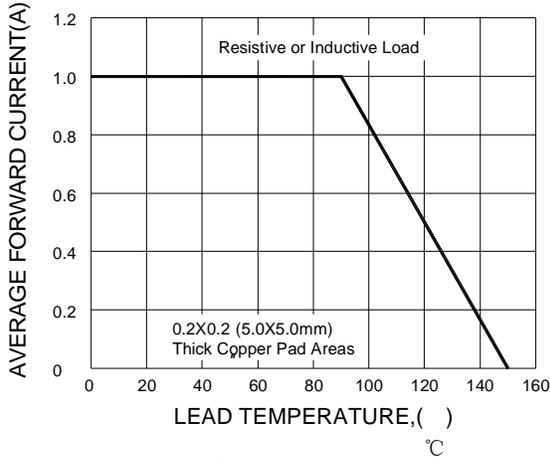
- Ratings at 25 ambient temperature unless otherwise specified.
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%

	SYMBOLS	M1	M2	M3	M4	M5	M6	M7	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current (see Fig.1)	$I_{F(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=90$	$I_{FSM}$	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage at	$T_A = 25$	5.0							$\mu A$
	$T_A = 125$	50							
Typical Junction Capacitance (NOTE 1)	$R_{0JA}$	50							/W
	$R_{0JL}$	90							
Typical Thermal Resistance (NOTE 2)	$t_{rr}$	1.8							$\mu s$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							

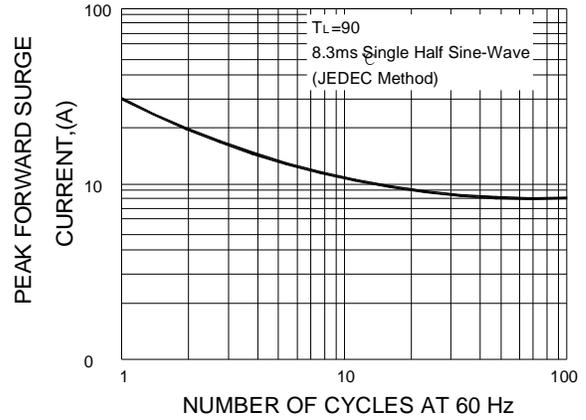
### Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on 0.2x0.2" (5.0 x 5.0mm) copper pad areas.
2. Reverse recovery test condition:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$

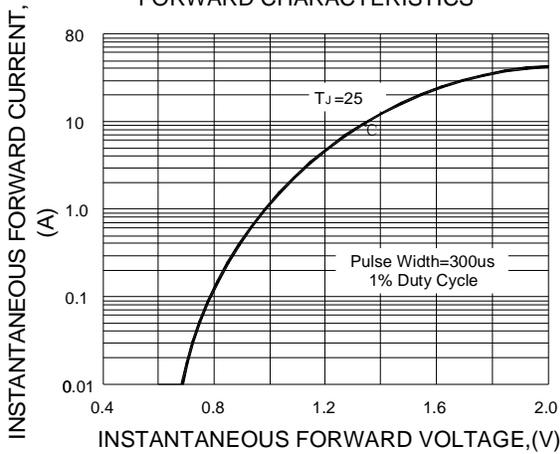
F1G.1-FORWARD CURRENT DERATING CURVE



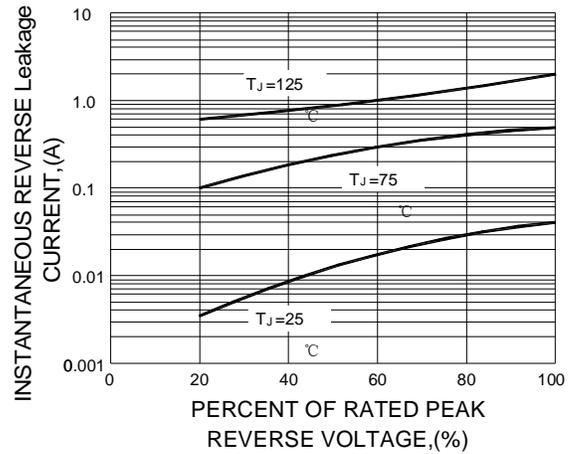
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



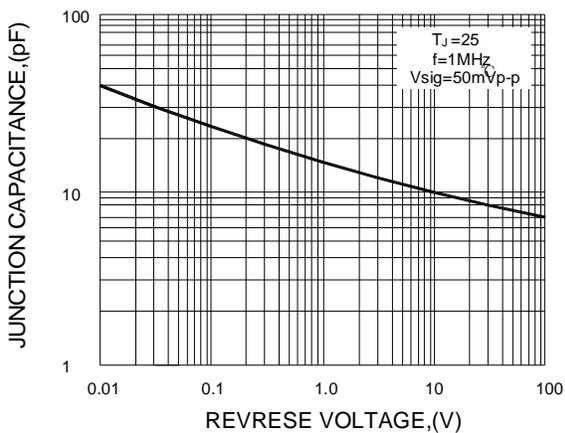
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



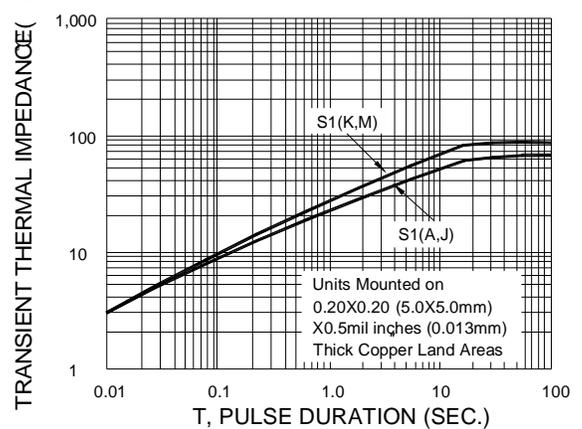
F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TRANSIENT THERMAL IMPEDANCE



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