

## M7R

### 1.0AMP. SURFACE MOUNT RECTIFIERS

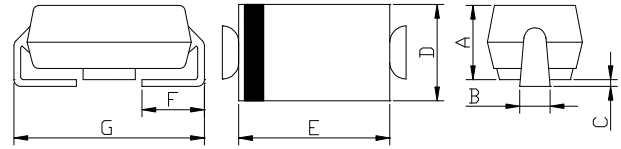
#### FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed:  
260°C/10 seconds at terminals.
- . For surface mounted application.
- . Easy pick and place.

#### MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL94V-0 rate flame retardant
- . Lead: MIL-STD- 202E, Method 208 guaranteed
- . Polarity: Color band denotes cathode end
- . Packaging: 12mm tape per EIA STD RS-481
- . Mounting position: Any

#### SMA



NO	Measurement (mm)
A	1.9~2.4
B	1.2~1.8
C	0.23MAX
D	2.4~2.9
E	3.8~4.6
F	0.8~1.8
G	4.8~5.8

### 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%

Type Number	SYMBOL	M7R	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Rectified Current at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30.0	A
Maximum Forward Voltage at 1.0A DC	$V_F$	1.0	V
Maximum Forward Voltage at 3.0A DC	$V_F$	1.3	V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	5.0 100.0	$\mu\text{A}$
Typical Junction Capacitance (Note1)	$C_J$	15	pF
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	75	$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$
Operation Junction Temperature	$T_J$	-55 to +150	$^\circ\text{C}$

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Measured on P.C.Board with  $0.2 \times 0.2''$  ( $5.0 \times 5.0\text{mm}$ ) Copper Pad Areas.

**RATING AND CHARACTERISTIC CURVES (M7R)**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

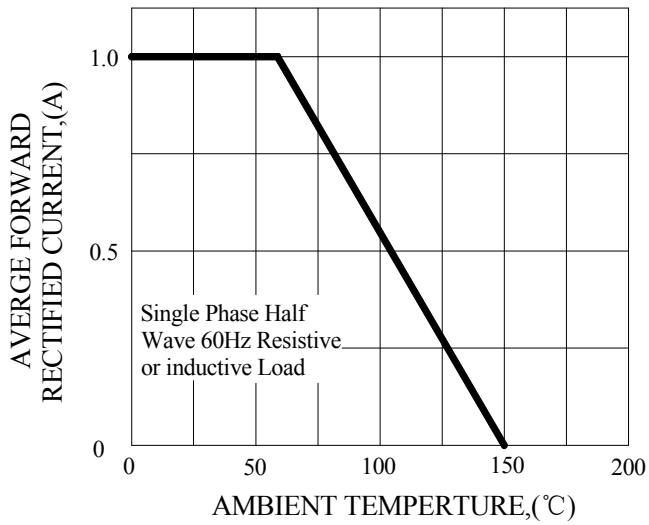


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

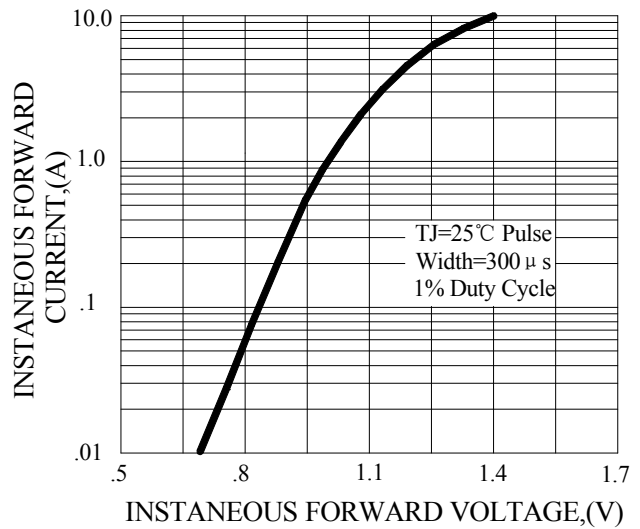


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

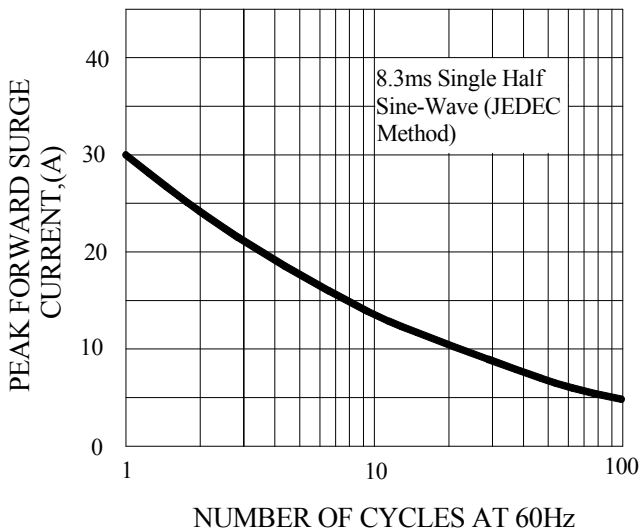


FIG.4-TYPICAL REVERSE CHARACTERISTICS

