



PINGWEI ENTERPRISE

# M1 THRU M7

## 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

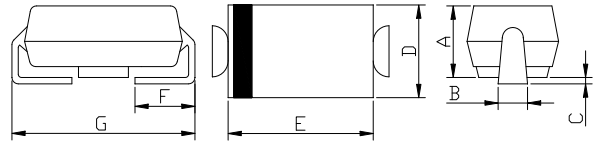


Fig1: SMA/DO-214AC\*  
FOR OPEN JUNCTION DICE PACKAGING OUTLINE

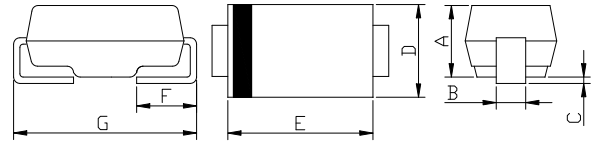


Fig2: SMA/DO-214AC  
FOR GLASS PASSIVATED DICE PACKAGING OUTLINE

NO	Fig1 (mm)	Fig2 (mm)
A	1.9~2.4	1.98~2.3
B	1.2~1.8	1.35~1.6
C	0.23MAX	0.2MAX
D	2.4~2.9	2.4~2.9
E	3.8~4.6	3.8~4.6
F	0.8~1.8	0.8~1.8
G	4.8~5.8	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	SYM BOL	M1	M2	M3	M4	M5	M6	M7	units
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 at $T_A=55^\circ C$	$I_{F(AV)}$	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 @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	5.0 100.0							$\mu A$
Typical Junction Capacitance (Note1)	$C_J$	15							pF
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	75							$^\circ C/W$
Storage Temperature	$T_{STG}$	-55 to +150							$^\circ C$
Operation Junction Temperature	$T_J$	-55 to +150							$^\circ C$

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Measured on P.C.Board with 0.2×0.2”(5.0×5.0mm)Copper Pad Areas.

# RATING AND CHARACTERISTIC CURVES (M1 THRU M7)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

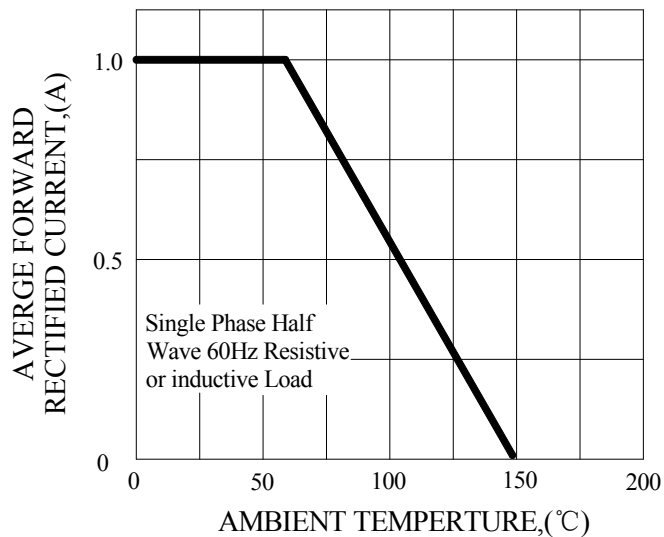


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

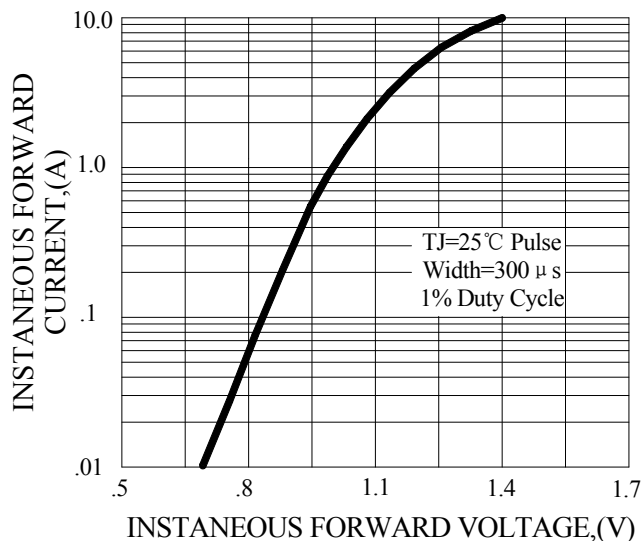


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

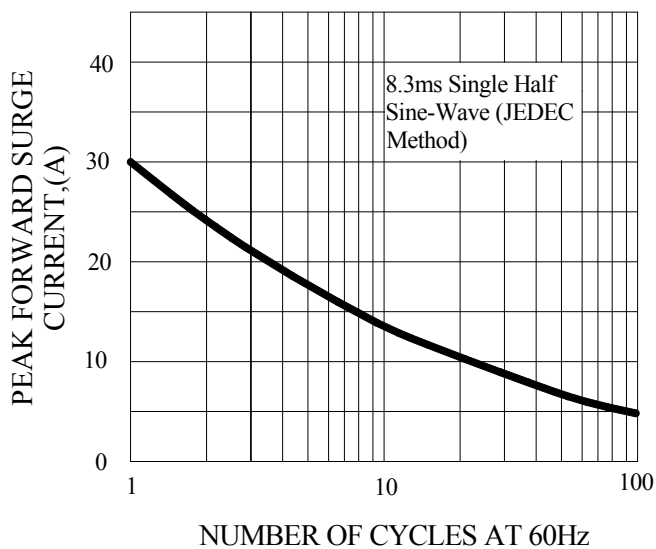
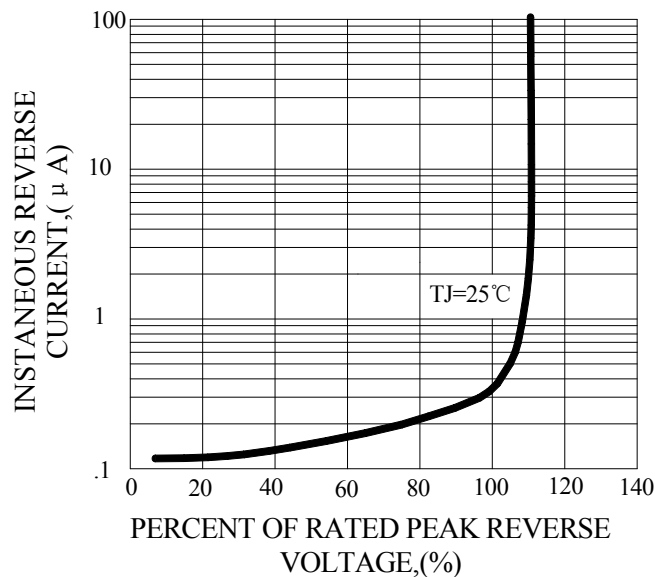


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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