

## SURFACE MOUNT RECTIFIERS

### FEATURES

For surface mounted applications

Low leakage

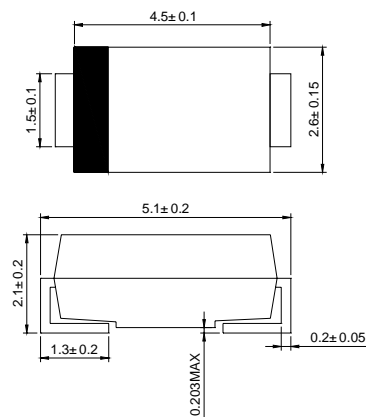
Low forward voltage drop

High current capability

Easily cleaned with Alcohol, Isopropnol and similar solvents

The plastic material carries U/L recognition 94V-0

### DO-214AC(SMA)



Dimensions in millimeters

### MECHANICAL DATA

Case: JEDEC DO-214AC, molded plastic

Terminals: Solder plated, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode end

Weight: 0.002 ounces, 0.064 grams

Mounting position: Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

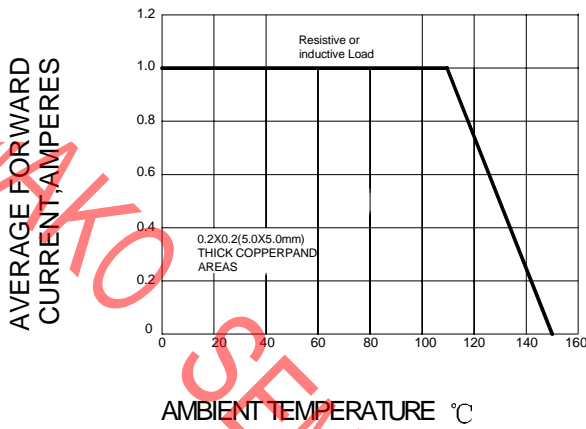
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

Parameter		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 @ $T_L=110^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_J=125^\circ\text{C}$	$I_{FSM}$	30							A
Maximum instantaneous forward voltage at 1.0 A	$V_F$	1.1							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	5.0 50							$\mu\text{A}$
Typical junction capacitance (Note1)	$C_J$	15							pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating temperature range	$T_J$	- 55 --- + 150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 --- + 150							$^\circ\text{C}$

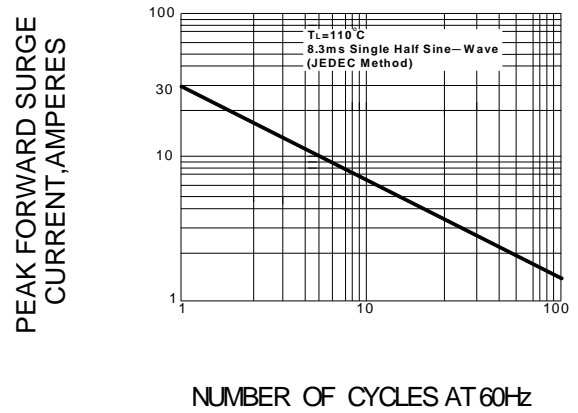
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient

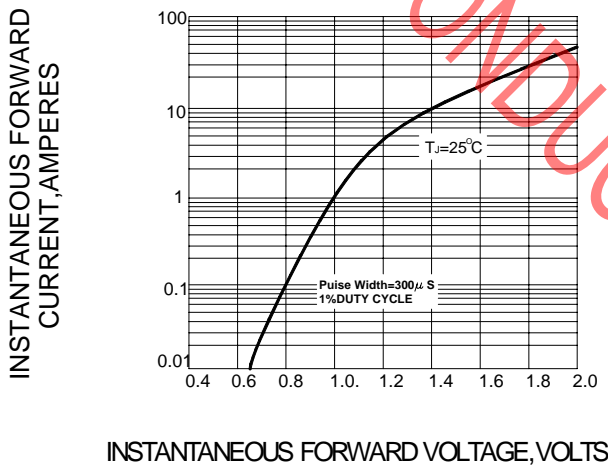
**FIG.1 – FORWARD DERATING CURVE**



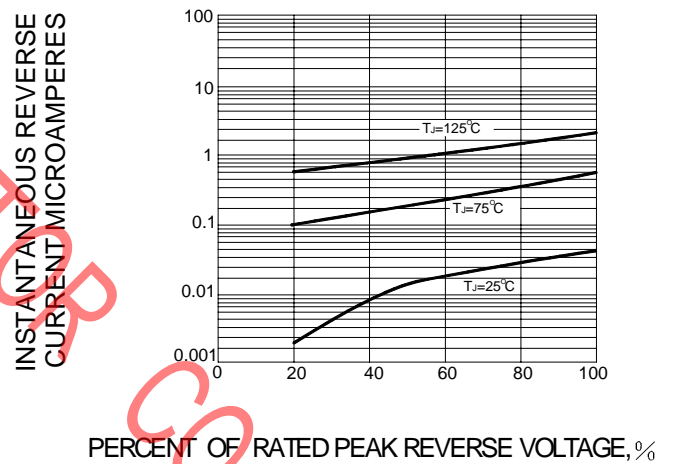
**FIG.2 PEAK FORWARD SURGE CURRENT**



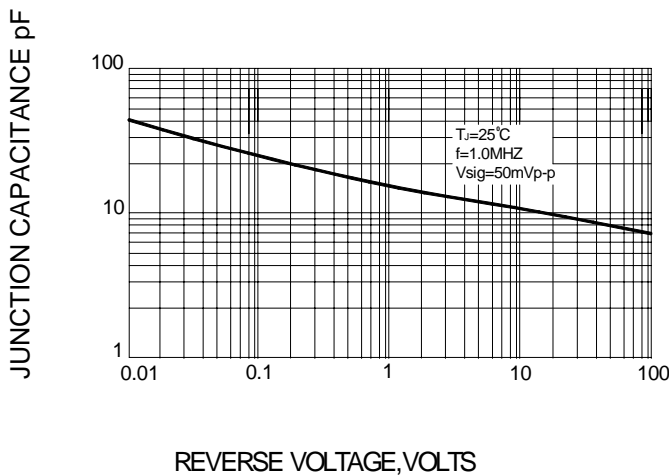
**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.6-TRANSIENT THERMAL IMPEDANCE**

