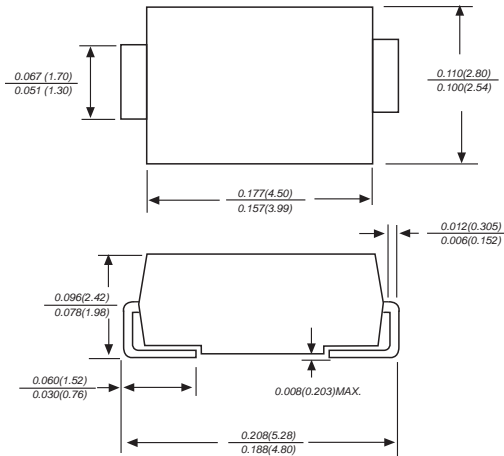




# RS2A THRU RS2M

**SURFACE MOUNT FAST RECOVERY RECTIFIER**  
 Reverse Voltage - 50 to 1000 Volts Forward Current -2.0 Ampere

## DO-214AC/SMA



## FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Glass passivated chip junction

## MECHANICAL DATA

**Case** : JEDEC DO-214AC molded plastic body over passivated chip  
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity** : Color band denotes cathode end  
**Mounting Position** : Any  
**Weight** :0.002 ounce, 0.07 grams

## 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 current derate by 20%.

MDD Catalog Number	SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNITS
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 at $T_L=90^\circ\text{C}$	$I_{(AV)}$	2.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0							Amps
Maximum instantaneous forward voltage at 2.0A	$V_F$	1.3							Volts
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 50.0							$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	150				250	500		ns
Typical junction capacitance (NOTE 2)	$C_J$	50.0							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	15.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150							$^\circ\text{C}$

**Note:** 1. Reverse recovery condition  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$   
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

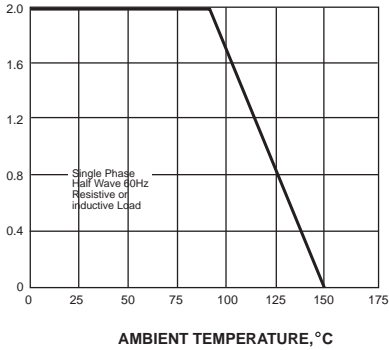


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# RATINGS AND CHARACTERISTIC CURVES RS2A THRU RS2M

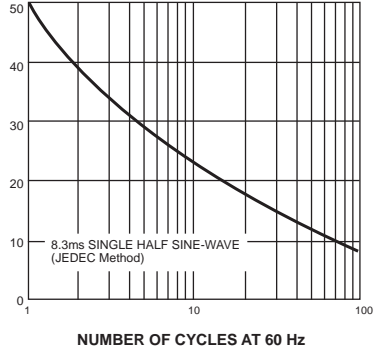
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



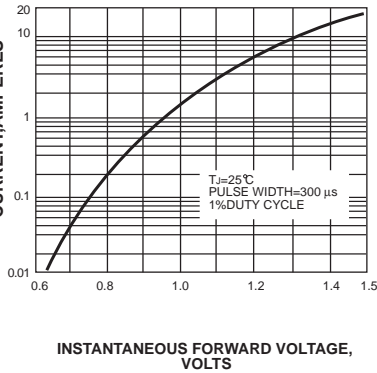
PEAK FORWARD SURGE CURRENT,  
AMPERES

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



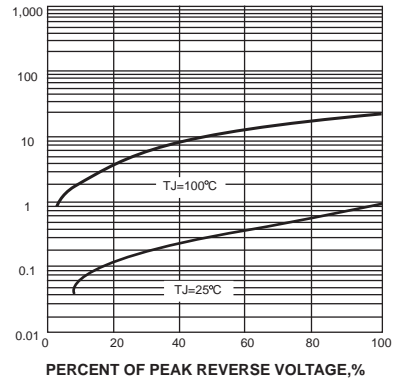
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



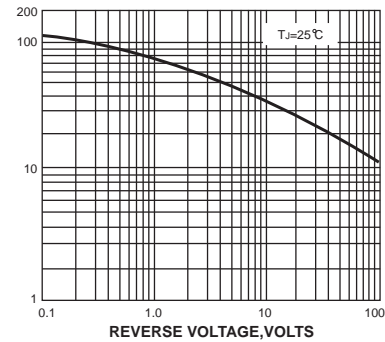
INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



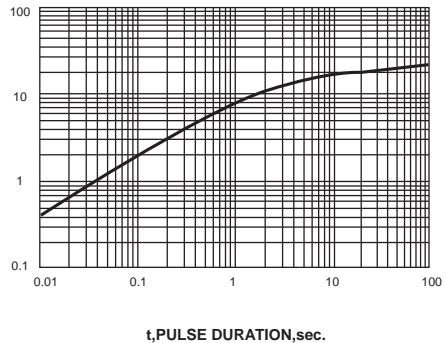
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
 $^\circ\text{C}/\text{W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



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