

# FR2A THRU FR2M

## SURFACE MOUNT FAST RECOVERY RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 2.0 AMPERE

<http://www.njzrg.com>

### FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals

### MECHANICAL DATA

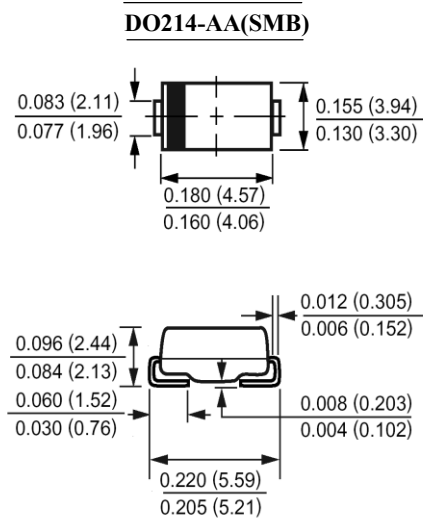
Case: Molded plastic, DO-214AA(SMB)

Terminals: Solder plated, solderable per MIL-STD-750, method 2026 guaranteed

Polarity: Color band denotes cathode end

Packaging: 12mm tape per EIA STD RS-481

Weight: 0.003 ounce, 0.093 gram



**Dimensions in inches and (millimeters)**

### 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%.

	Symbols	FR2A	FR2B	FR2D	FR2G	FR2J	FR2K	FR2M	Units
Maximum Recurrent 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 $T_L=90$	$I_{(AV)}$	2.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50							Amp
Maximum Forward Voltage at 2.0A	$V_F$	1.30							Volts
Maximum Reverse Current at $T_A=25$	$I_R$	5.0							$\mu$ Amp
at Rated DC Blocking Voltage $T_A=125$		200							
Typical Junction Capacitance (Note 1)	$C_J$	40							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	20							/W
Maximum Reverse Recovery Time (Note 3)	$T_{RR}$	150			250		500		nS
Operating Junction Temperature Range	$T_J$	-55 to +150							
Storage Temperature Range	$T_{stg}$	-55 to +150							

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

3- Reverse Recovery Test Conditions :  $I_F=0.5A$  ,  $I_R=1A$  ,  $I_{RR}=0.25A$ .

# FR2A THRU FR2M

## SURFACE MOUNT FAST RECOVERY RECTIFIER

### RATINGS AND CHARACTERISTIC CURVES

<http://www.njzrg.com>

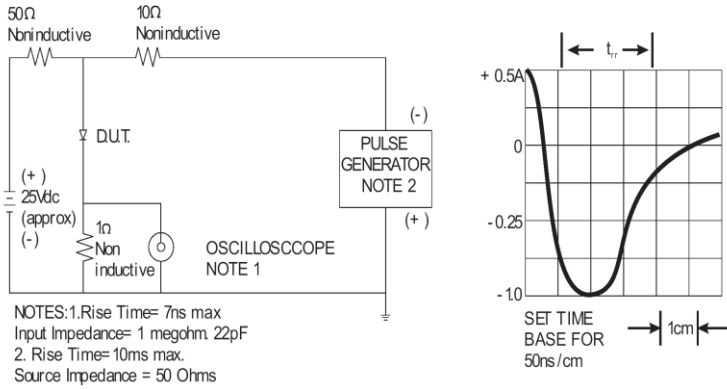


Fig. 1-REVERSERECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

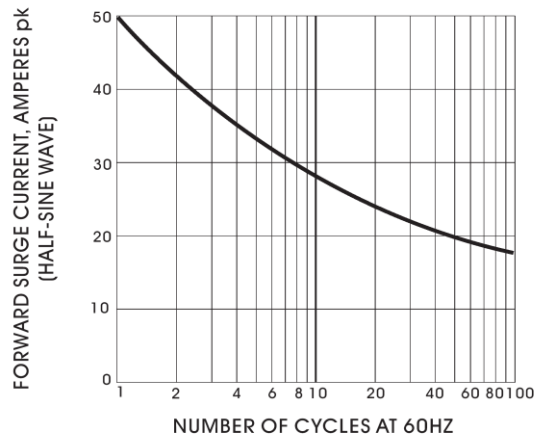


Fig. 2-MAXIMUM OVERLOAD SURGE-CURRENT

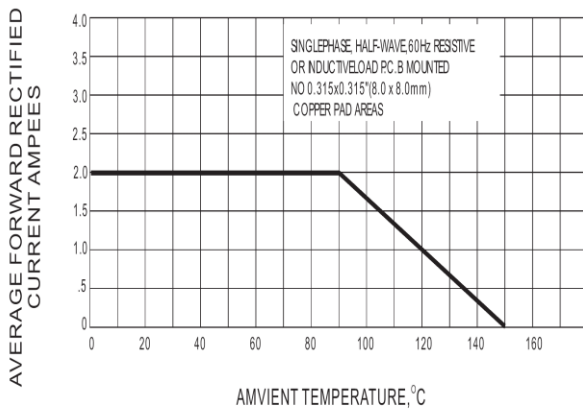


Fig. 3-MAXIMU AVERAGE FORWARD CURRENT RATING

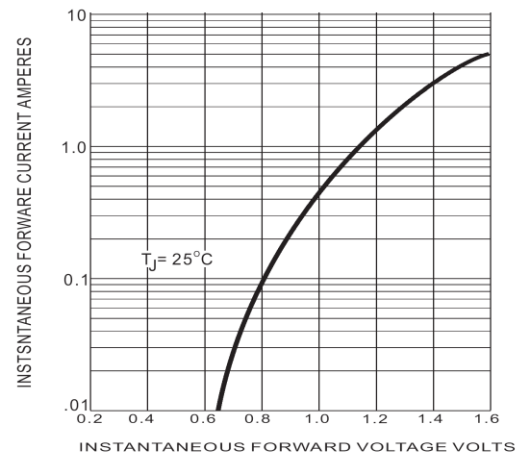


Fig. 4- FORWARD CURRENT DERATING CURV

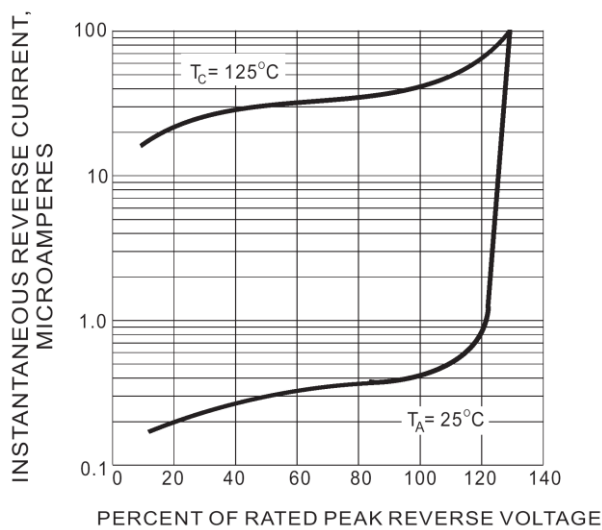


Fig. 5-TYPICAL REVERSE CHARACTERISTICS

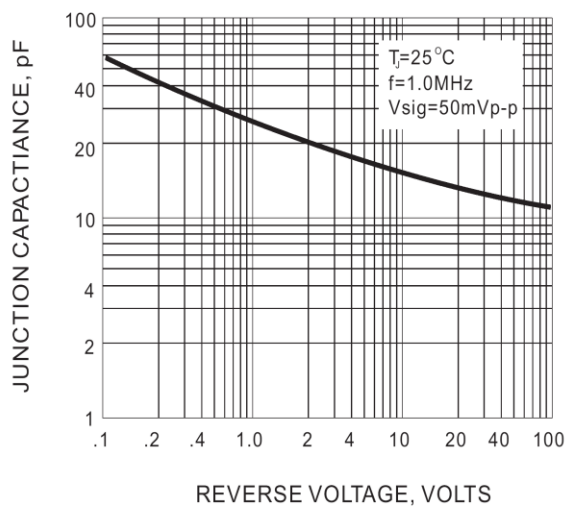


Fig. 6- TYPICAL JUNCTION CAPACITANC