

# DC COMPONENTS CO., LTD.

#### RECTIFIER SPECIALISTS

RS2AF THRU RS2MF

## TECHNICAL SPECIFICATIONS OF FAST RECOVERY RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 2.0 Amperes

#### **FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Glass passivated junction
- \* High efficiency
- \* Fast reverse recovery time

#### MECHANICAL DATA

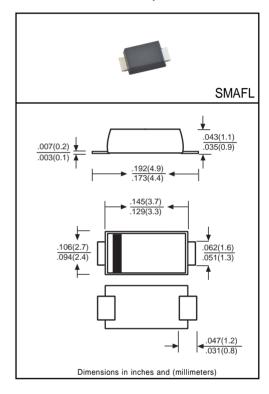
\* Case: Molded plastic

\* Epoxy: UL 94V-0 rate flame retardant \*Terminals: Solder plated, solderable per

MIL-STD-750, Method 2026

\* Polarity: As marked \* Mounting position: Any \* Weight: 0.03 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS Rating at 25°C ambient tempature unless ohterwise specified Single phase, half wave 60 HZ, resistive or inductive load. For capacitive load, derate current by 20%.



		SYMBOL	RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	RS2KF	RS2MF	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 65°C		lo	2.0							Amps
Peak Forward Surge Current IFM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	50						Amps	
Maximum Forward Voltage at 2.0A DC		VF	1.3						Volts	
Maximum DC Reverse Current at	@Ta = 25°C	l <sub>R</sub>	5.0						μAmps	
Rated DC Blocking Voltage	@T <sub>A</sub> = 125°C	IR	100							
Maximum Reverse Recovery Time (Note 1)		trr		150			250	500		nSec
Typical Thermal Resistance (Note 2)		Reja	75						°C/W	
Typical Junction Capacitance (Note 3)		Cj	40						pF	
Operating and Storage Temperature Range		TJ, TSTG	-55 to +150						٥C	

NOTES: 1. Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A,

- 2. P.C.B. mounted with 0.5x0.5 in<sup>2</sup> (12.7x12.7mm<sup>2</sup>) copper pads to each terminal.
- 3. Measured at 1MHz and applied reverse voltage of 4VDC.

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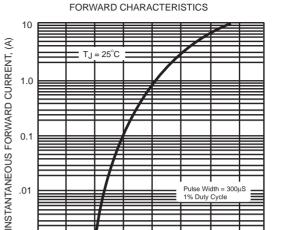
### RATING AND CHARACTERISTIC CURVES (RS2AF THRU RS2MF)

.001 0

0.5

FIG. 1 - TYPICAL FORWARD **CURRENT DERATING CURVE** 3.0 2.5 AVERAGE FORWARD 2.0 CURENT, (A) 1.5 Single Phase 1.0 Half Wave 60Hz Resistive οr 0.5 Load 0 25 75 100 125 150 175 0 50

AMBIENT TEMPERATURE (OC)



1.0 INSTANTANEOUS FORWARD VOLTAGE, (V)

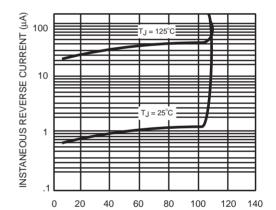
FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

2.0

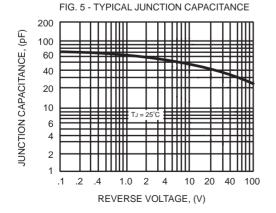
2.5

FIG. 2 - TYPICAL INSTANTANEOUS

FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PEAK FORWARD SURGE CURRENT, (A) 70 60 8.3ms Single Half Sine (JEDEC Method) 50 40 30 20 10 0 2 5 50 100 NUMBER OF CYCLES AT 60Hz



RATED PEAK REVERSE VOLTAGE (%)



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