DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

RS3AF
THRU
RS3MF

TECHNICAL SPECIFICATIONS OF FAST RECOVERY RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 3.0 Amperes

FEATURES

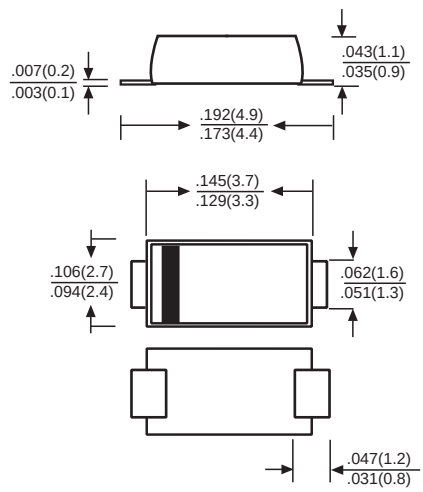
* Ideal for surface mounted applications
* Low leakage current
* Glass passivated junction
* High efficiency
* Fast reverse recovery time

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%.

SMAFL



Dimensions in inches and (millimeters)

		SYMBOL	RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF	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_A = 65°C		I_O	3.0							Amps
Peak Forward Surge Current I_{FM}(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	100							Amps
Maximum Forward Voltage at 3.0A DC		V_F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	5.0							µAmps
	@T_A = 125°C		150							
Maximum Reverse Recovery Time (Note 1)		trr	150				250			nSec
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	60							°C/W
Typical Junction Capacitance (Note 3)		C_j	60							pF
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150							°C

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

2. P.C.B. mounted with 0.5x0.5 in^2 (12.7x12.7mm^2) copper pads to each terminal.

3. Measured at 1MHz and applied reverse voltage of 4VDC.

RATING AND CHARACTERISTIC CURVES (RS3AF THRU RS3MF)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

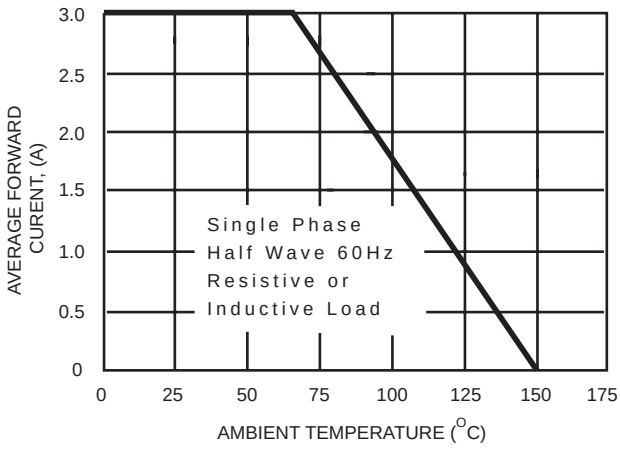


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

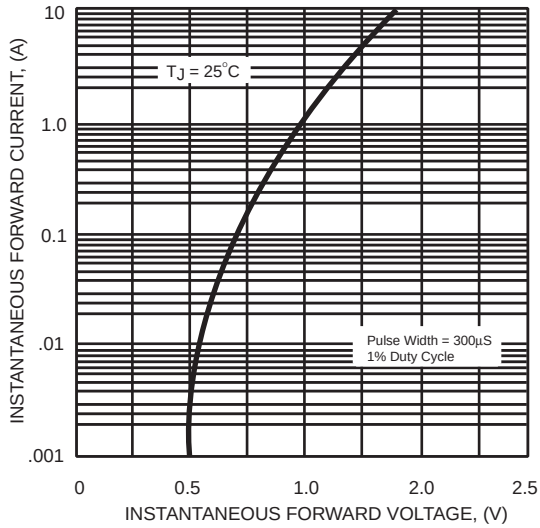


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

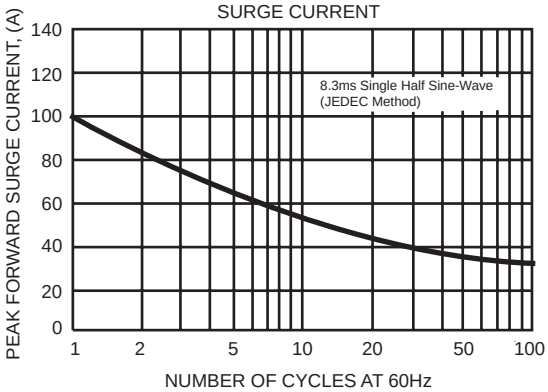


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

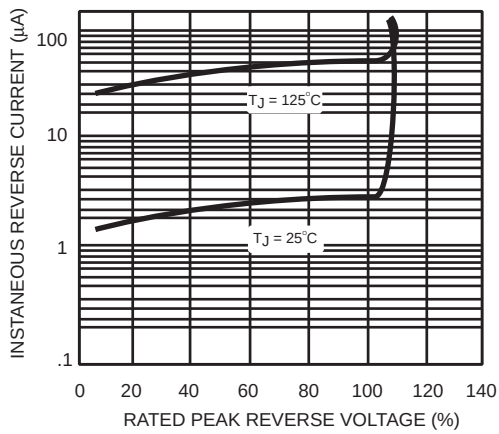
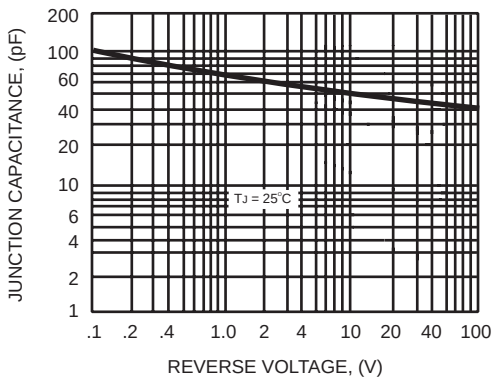


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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