WANGFENG ELECTRON
旺峰电子

RS1AF THRU RS1MF
1.0 AMP SURFACE MOUNT FAST RECOVERY RECTIFIERS

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Ampere

FEATURES

* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Fast switching speed

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Metallurgically bonded construction
* Polarity: Color band denotes cathode end
* Mounting position: Any

SMAF
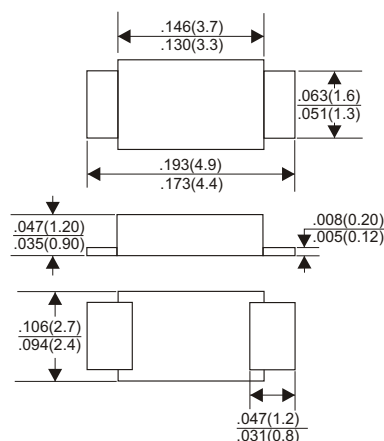
.146(3.7)
.130(3.3)

.063(1.6)
.051(1.3)

.193(4.9)
.173(4.4)

.047(1.20)
.035(0.90)

.008(0.20)
.005(0.12)

.106(2.7)
.094(2.4)

.047(1.2)
.031(0.8)

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=55°C	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage at 1.0A	1.3							V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=100°C	100							μA
Maximum Reverse Recovery Time (Note 1)	150				250	500		nS
Typical Junction Capacitance (Note 2)	15							pF
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +150							°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (RS1AFTHRU RS1MF)
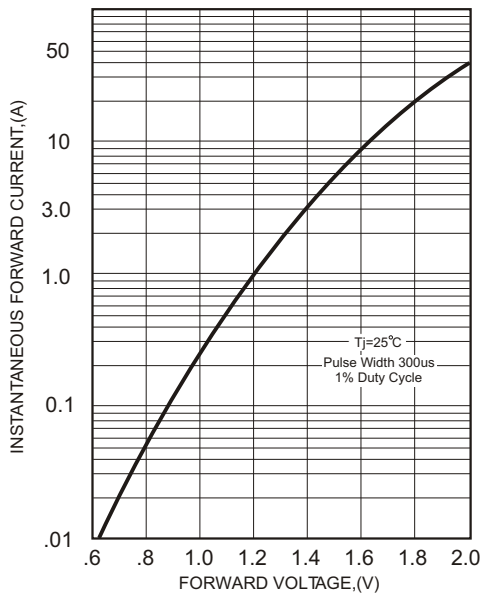
FIG.1-TYPICAL FORWARD

CHARACTERISTICS

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE
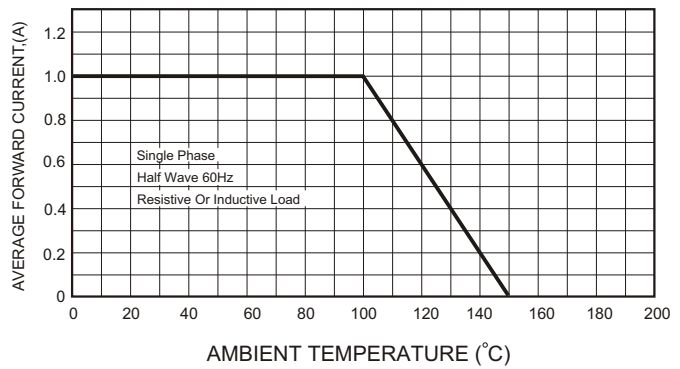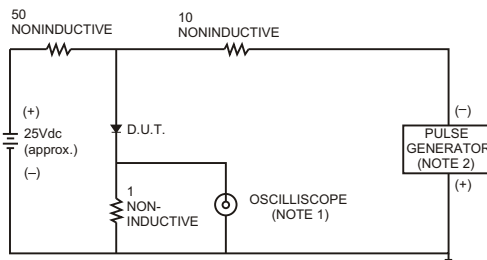
FIG.4-MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE

RECOVERY TIME CHARACTERISTICS

NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
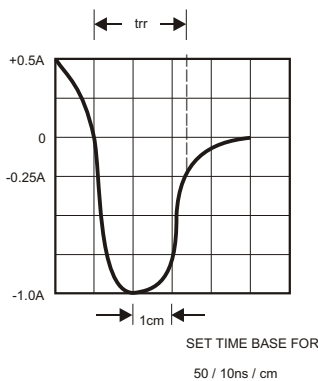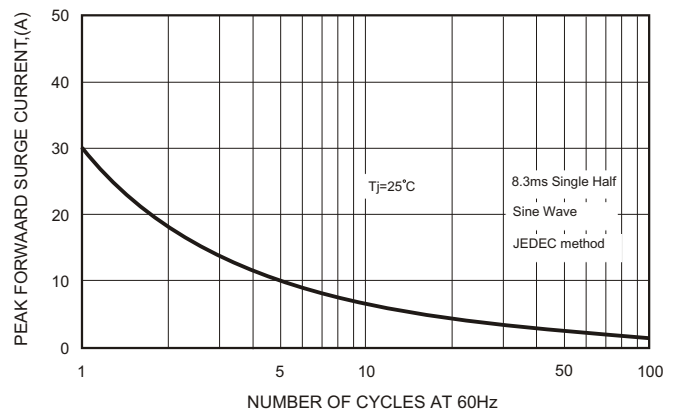
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

FIG.5-TYPICAL JUNCTION CAPACITANCE