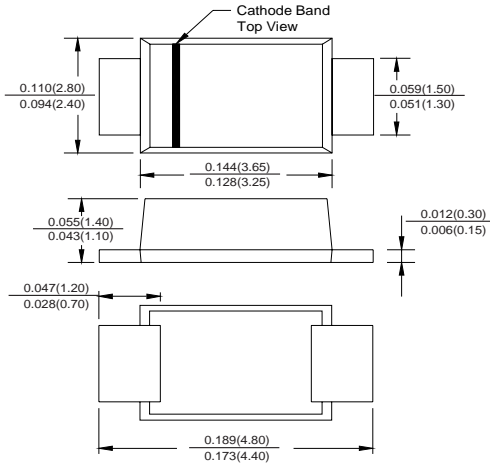




RS2AF THRU RS2MF

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

SMAF



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals
- ◆ Glass passivated chip junction

MECHANICAL DATA

Case: JEDEC SMAF 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: 0.0018 ounce, 0.064 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

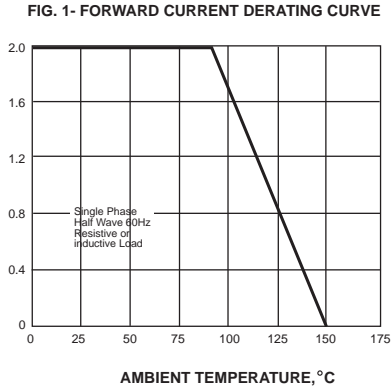
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	RS2KF	RS2MF	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							μA
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)	$R_{\theta JA}$	20.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							$^\circ\text{C}$

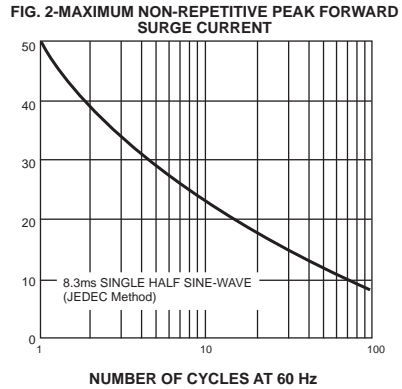
Note: 1. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES RS2AF THRU RS2MF

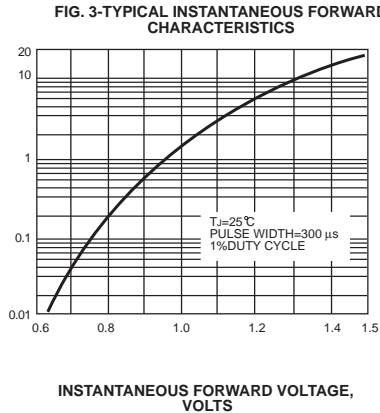
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES



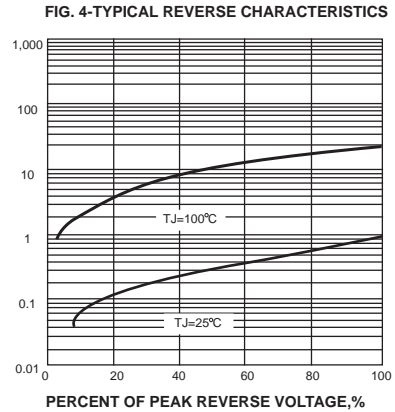
PEAK FORWARD SURGE CURRENT,
AMPERES



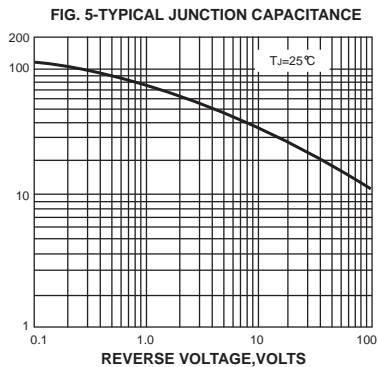
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES



JUNCTION CAPACITANCE, pF



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

