

SURFACE MOUNT FAST RECOVERY RECTIFIER

RS1A THRU RS1M

VOLTAGE RANGE
CURRENT

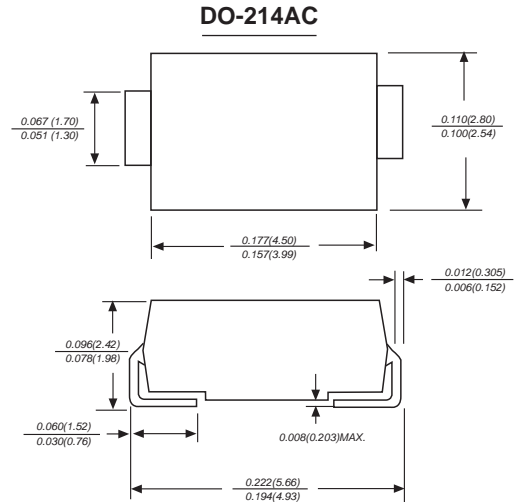
50 to 1000 Volts
1.0 Ampere

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: 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight: 0.002 ounce, 0.07 grams



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 current derate by 20%.

	SYMBOLS	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	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 $T_L=90^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	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	15.0							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	50.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 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



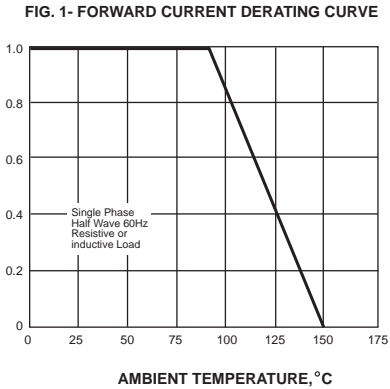
SURFACE MOUNT FAST RECOVERY RECTIFIER

RS1A THRU RS1M

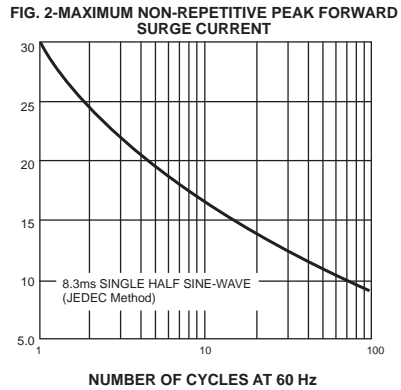
VOLTAGE RANGE
CURRENT

50 to 1000 Volts
1.0 Ampere

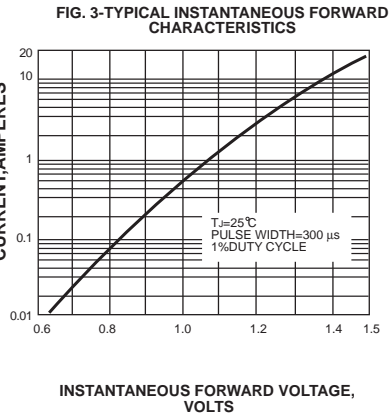
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES



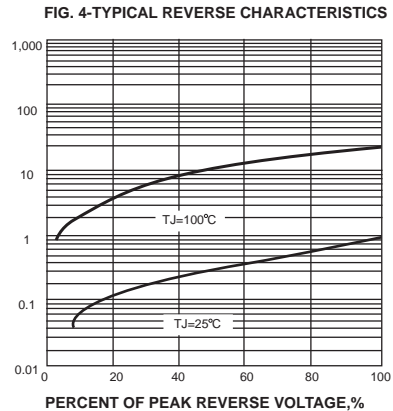
PEAK FORWARD SURGE CURRENT,
AMPERES



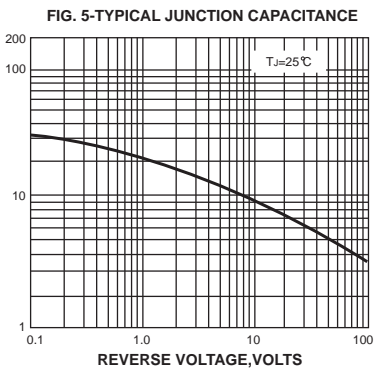
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES



JUNCTION CAPACITANCE, pF



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

