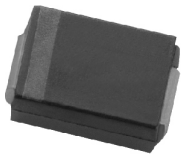
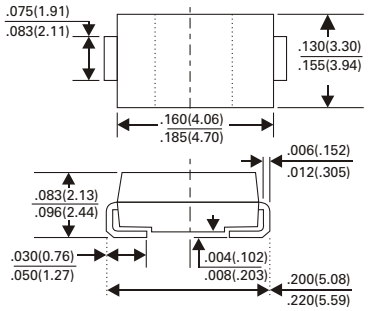
RS2AB thru RS2MB

FAST SWITCHING SURFACE MOUNT RECTIFIER

VOLTAGE - 50 TO 1000 VOLTS CURRENT - 2.0 AMPERES



SMB/DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- Low profile package
- Buit-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability classification 94V-0
- Glass passivated junction
- High temperature soldering：260°C/10seconds at terminals
- Pb free product are available：99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

Case：JEDEC DO-214AA molded plastic
Terminals：Solder plated, solderable per MIL-STD-750, Method 2026
Polarity：Indicated by cathode band
Standard packaging：12mm tape (EIA-481)
Weight：0.003 ounce, 0.093grams

MAXIMUM RATIXGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	RS2AB	RS2BB	RS2DB	RS2GB	RS2JB	RS2KB	RS2MB	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 @ T_L =90°C	$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							Amps
Maximum Instantaneoue Forward Voltage at 2.0A	V_F	1.3							Volts
Maximum DC Reverse Current @T_A=25°C at Rated DC Blocking Voltage @T_A=125°C	I_R	5.0 200							μA
Maximum Reverse Recovery Time (NOTE 1) T_J=25°C	T_{RR}	150				250	300		nS
Typical Junction Capacitance (NOTE 2)	C_J	40							pF
Maximum Thermal Resistance (NOTE 3)	$R_{\theta JL}$	20							°C / W
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150							°C

NOTES：
1. Rverse Recovery Test Condibons I_F = 0.5A, I_R = 1.0A, I_{RR}= 0.25A
2. Measured at 1 MHz and applied V_R = 4.0 volts
3. 8.0mm² (.013mm thick) land areas

RS2AB thru RS2MB

FAST SWITCHING SURFACE MOUNT RECTIFIER

RATING AND CHARACTERISTICS CURVES RS2AB THRURS2MB

Fig. 1 - FORWARD CURRENT DERATING CURVE

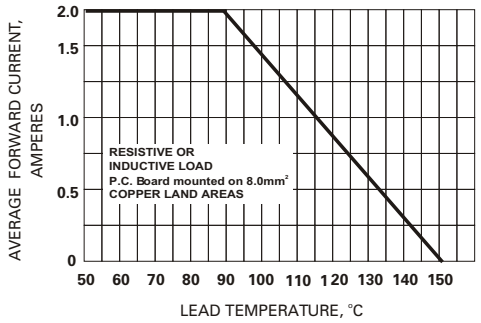


Fig. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

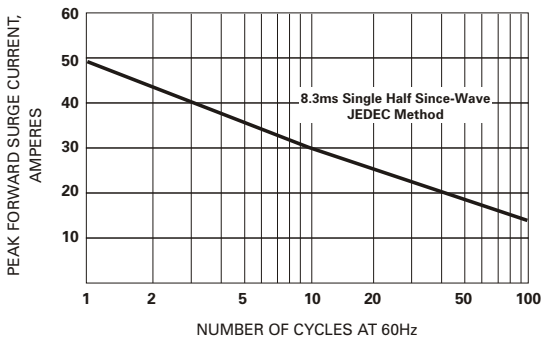


Fig. 3 - FORWARD CHARACTERISTICS

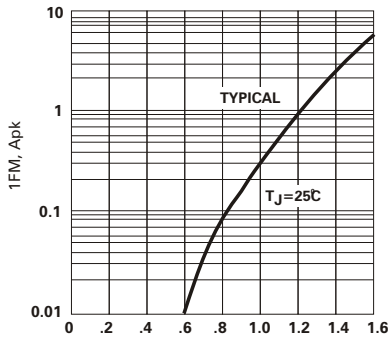


Fig. 4 - TYPICAL REVERSE CHARACTERISTICS

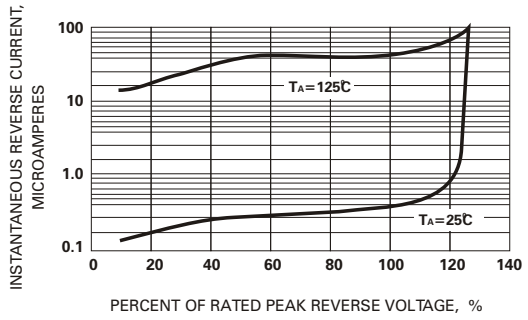


Fig. 5 - TYPICAL JUNCTION CHARACTERISTICS

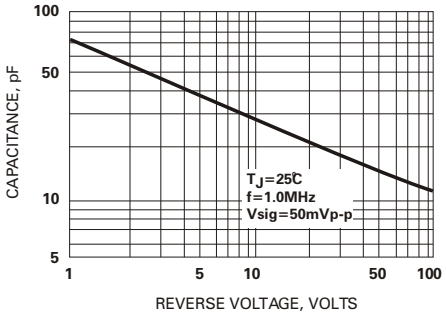
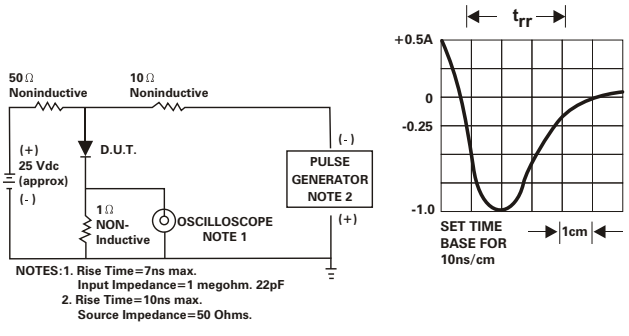


Fig. 6 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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