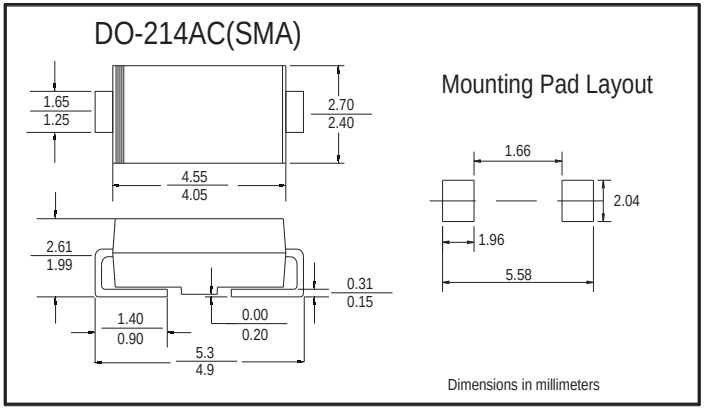
SURFACE MOUNT FAST SWITCHING RECTIFIER

Reverse Voltage - 50 to 1000 Volts **Forward Current -** 1.0 Ampere

Features

- For surface mounted application
- Metal to silicon rectifier,majority carrier conduction
- Low forward voltage drop
- Easy pick and place
- High surge current capability
- Plastic materal used carriers Underwriters Laboratory Classification 94-O
- Epitaxial construction
- High temperature soldering: 250℃/10 seconds at terminals



Mechanical Data

- Case: molded plastic
- Terminals:Solder plated
- Polarity:Indicated by cathode band
- Packaging:12mm tape EIA STD RS-481
- Weight:0.064gram

Maximum Ratings and Electrical Characteristics

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

Type Number		RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_L=90°C	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage (Note@1.0 A	V_F	1.3							V
Maximum DC Reverse Crrent @ T_ATA=25°C At Rated DC Blocking Voltage @ T_A=125°C	I_R	5.0 50							uA
Maximun Reverse Recovery Time(Note 1)	T_{RR}	150				250	500		nS
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	25 55							°C /W
Operating Junction Temperature Range	T_J	-55 to+125							°C
Storage Temperature Ranage	T_{STG}	-55 to+150							°C

NOTES: 1.Reverse Recovery Test conditions:I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.

2. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.2”x0.2” (5.0 x 5.0 mm) Copper Pad Areas.

■ Characteristics(Typical)

FIG.1: FORWARD CURRENT DERATING CURVE

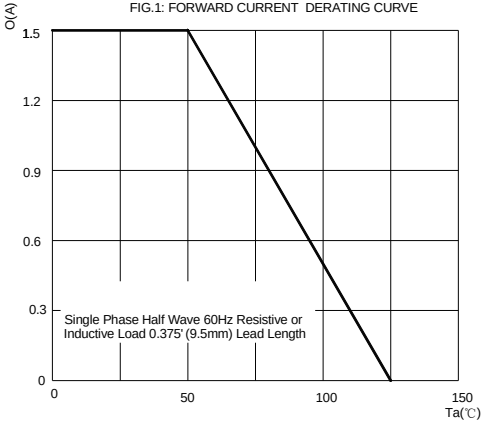
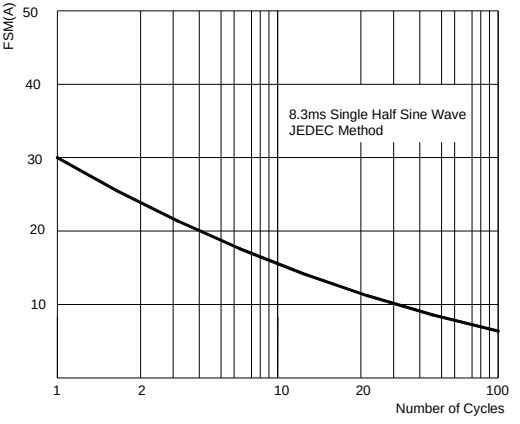


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



F G.3: TYPICAL FORWARD CHARACTERIST CS

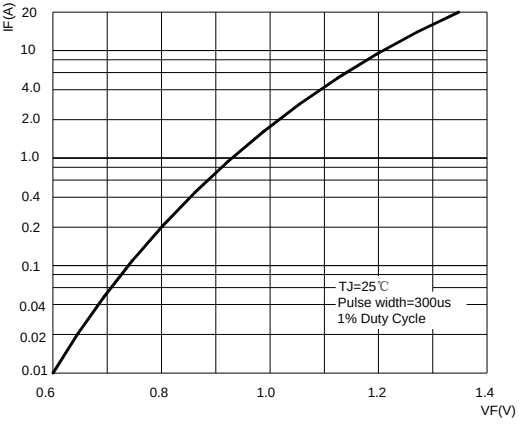


FIG.4: TYP CAL REVERSE CHARACTERIST CS

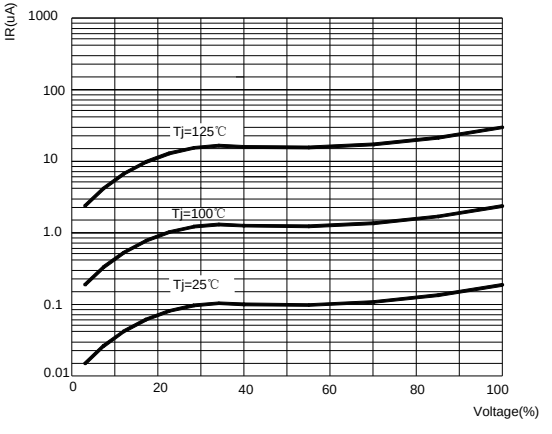


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time