SEMICONDUCTOR

RS3AC THRU RS3MC

GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIER

Reverse Voltage: 50 to 1000 Volts
Forward Current:3.0Ampere

FEATURES

- Glass passivated junction
- For Surface Mount Applications, Easy to pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed:260°C/10 seconds at terminals,
- Component in accordance to RoHS 2015/863/EU

Pb
RoHS
COMPLIANT

SMC(DO-214AB)

Cathode ⟵ Anode

MECHANICAL DATA

- Case: JEDEC SMC(DO-214AB) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Weight: 0.007ounce,0.21 gram

TYPICAL APPLICATIONS

For use in low voltage ,high frequency inverters ,DC/DC converters,
free wheeling ,and polarity protection applications

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,60HZ,resistive or inductive load.
For capacitive load,derate current by 20%.)

Parameters	Symbols	RS3AC	RS3BC	RS3DC	RS3GC	RS3JC	RS3KC	RS3MC	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	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100							A
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.3							V
Maximum DC Reverse Current at rated DC blocking voltage T_A=25°C	I_R	5.0							μA
T_A=125°C		100							
Maximum reverse recovery time(Note1)	trr	150				250	500		ns
Typical junction capacitance(Note2)	C_J	40.0							pF
Typical Thermal Resistance(Note3)	$R_{\theta JA}$ $R_{\theta JL}$	47 12							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to+150							℃

Note: 1.Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.
2.Measured at 1MHZ and applied reverse voltage of 4.0 Volts.
3.Units mounted on PCB with 0.31" x 0.31" (8.0 mm x 8.0 mm) copper pad areas

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

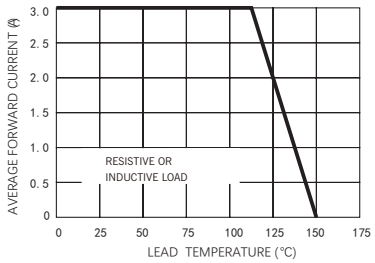


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

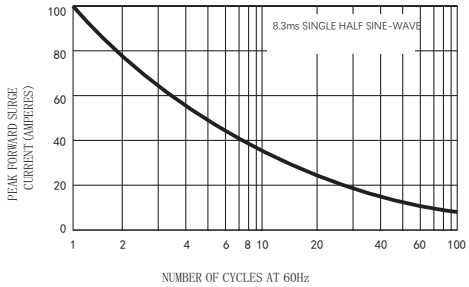


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

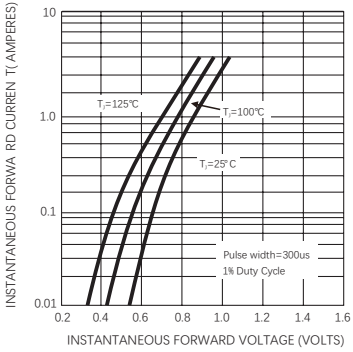


FIG.4-TYPICAL REVERSE CHARACTERISTICS

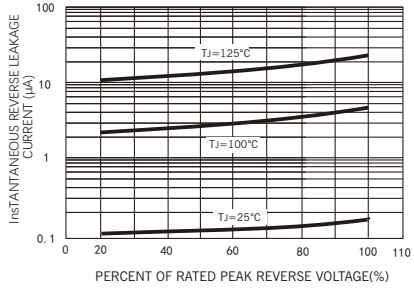


FIG.5-TYPICAL JUNCTION CAPACITANCE

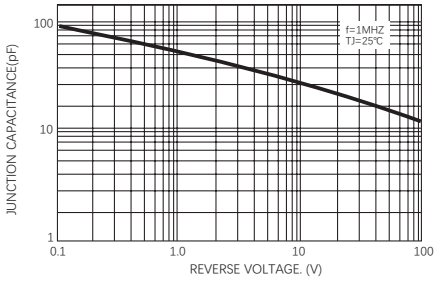
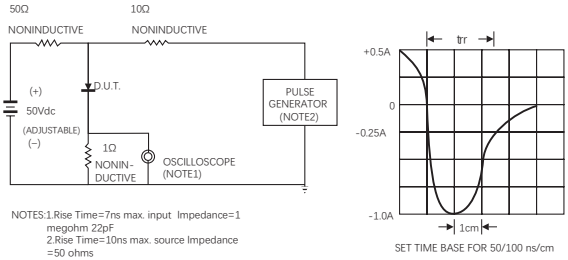


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



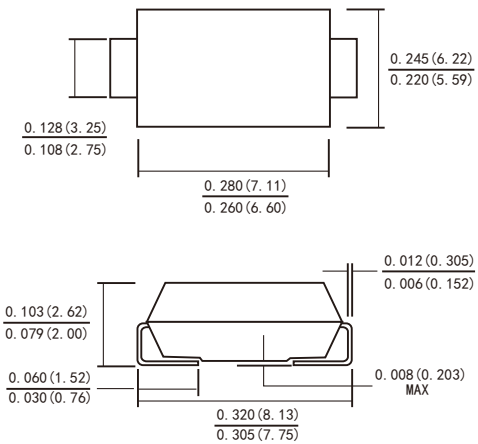
NOTES:1.Rise Time=7ns max. input Impedance=1 megohm 22pF
2.Rise Time=10ns max. source Impedance =50 ohms

AVAILABALE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L×W×H (mm)	Quantity (reel/box)	Carton Size L×W×H (mm)	Quantity (box/carton)	Quantity (carton) (K)
RS3AC...RS3MC-SMC	T/R	Φ330	3000	338×338×39	2	370×370×360	8	48

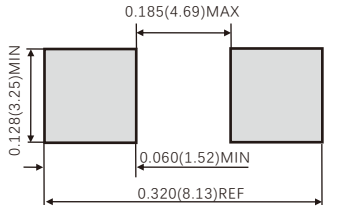
PACKAGE OUTLINE DIMENSIONS

SMC(DO-214AB)



Dimensions in inches and (millimeters)

Suggested PAD Layout



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