



RS3X SERIES

SURFACE MOUNT FAST RECOVERY RECTIFIER

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<http://www.cenxelec.com.cn>

RS3A THRU RS3M

SURFACE MOUNT FAST RECOVERY RECTIFIER



REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 3.0 AMPERE

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

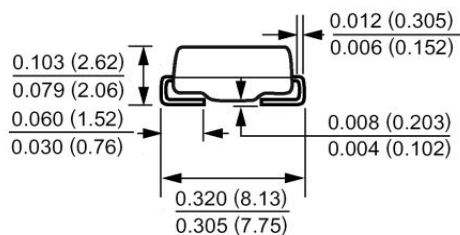
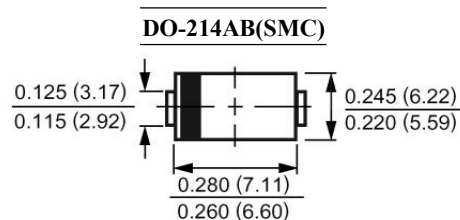
Case: Molded plastic, DO-214AB(SMC)

Terminals: Pure tin plated, lead free

Polarity: Indicated by cathode band

Packaging: 16mm tape per EIA STD RS-481

Weight: 0.21 gram



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, derate current by 20%.

	Symbols	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Units
Maximum Recurrent 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 =75°C	I _(AV)	3.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100							Amp
Maximum Forward Voltage at 3.0A	V _F	1.3							Volts
Maximum Reverse Current at T _A =25°C at Rated DC Blocking Voltage T _A =125°C	I _R	10 250							μAmp
Typical Junction Capacitance (Note 1)	C _J	60							pF
Typical Thermal Resistance (Note 2)	R _{θJA} R _{θJL}	50 15							°C/W
Maximum Reverse Recovery Time (Note 3)	T _{RR}	150			250		500		nS
Operating Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{stg}	-55 to +150							°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6 x 0.6" (16.0 x 16.0mm) copper pad areas

3- Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{RR}=.25A.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

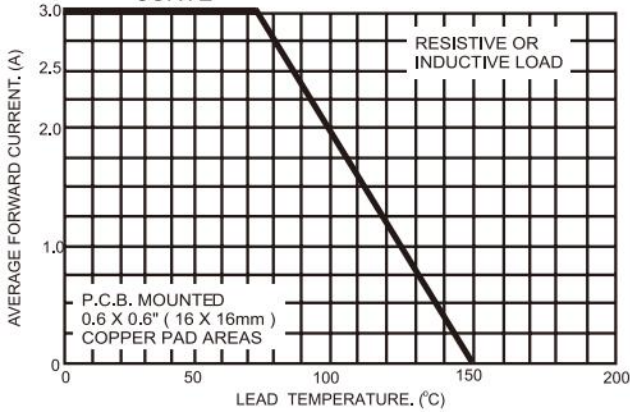


FIG.2- TYPICAL REVERSE CHARACTERISTICS

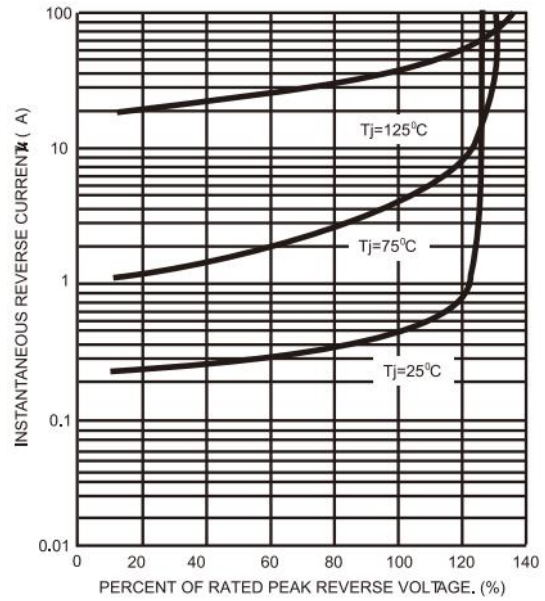


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

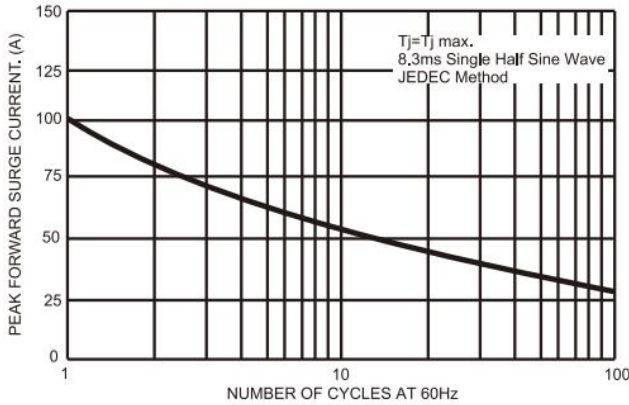


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

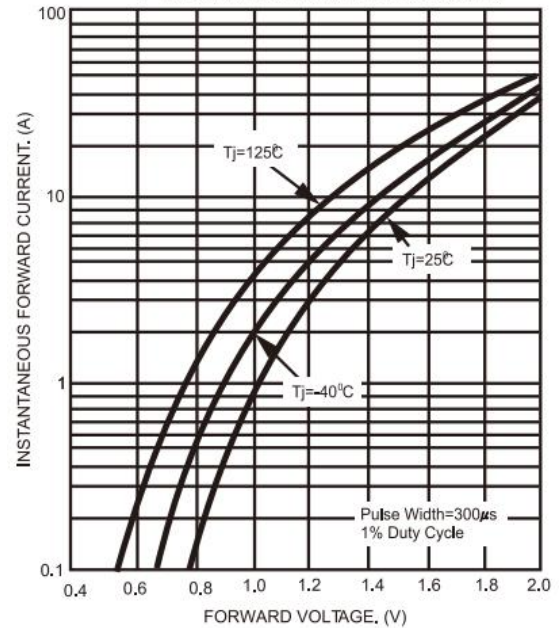


FIG.4- TYPICAL JUNCTION CAPACITANCE

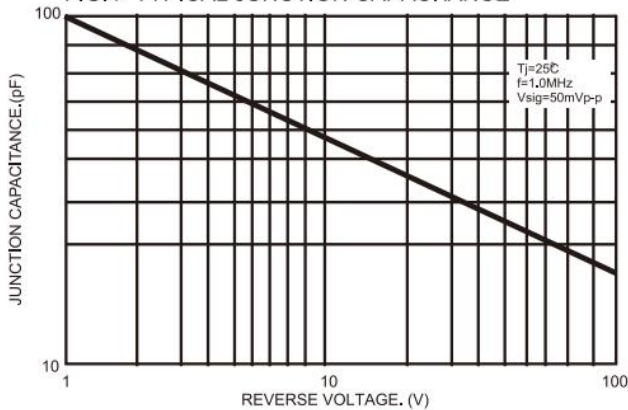


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

