

RS3A THRU RS3M

SURFACE MOUNT FAST RECOVERY RECTIFIER



FEATURES

- Glass Passivated chip junction
- Built-in strain relief
- Fast switching speed for high efficiency
- High temperature soldering guaranteed:
250 /10 second at terminals

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-202E method208C
- Polarity: Color band denotes cathode end
- Weight: 0.007ounce, 0.25 gram-DO-214AB (SMC)

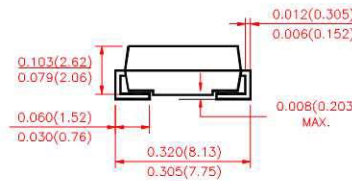
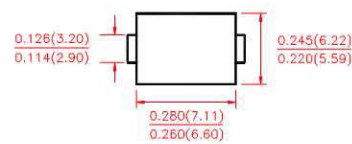
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

3.0 Ampere

DO-214AB(SMC)



Dimensions in inches and millimeter

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%.

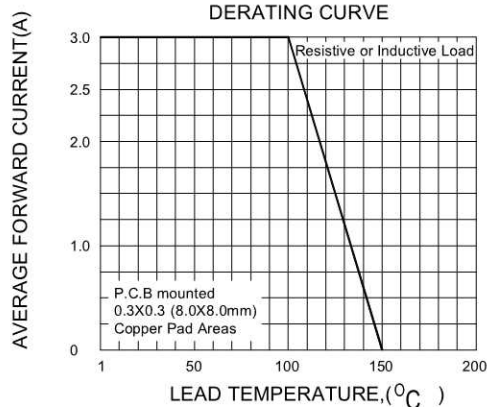
		SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	UNIT
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T _L =100		I _(AV)	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)		I _{FSM}	100							Amps
Maximum Instantaneous Forward Voltage at 3.0A		V _F	1.3							Volts
Maximum DC Reverse Current at rated DC blocking voltage at	T _A = 25	I _R	10.0							A
	T _A = 125		250							
Typical Reverse Recovery Time Test conditions I _F =0.5A, I _R =1.0A, I _{RR} =0.25A		T _{rr}	150				250	500	ns	
Typical Junction Capacitance (NOTE 2)		C _J	60							pF
Typical Thermal Resistance (NOTE 1)		R _{θJA}	50							°C/W
		R _{θJL}	15							
Operating Junction Temperature Range		T _J	-55 to +150							°C
Storage Temperature Range		T _{STG}	-55 to +150							°C

Notes:

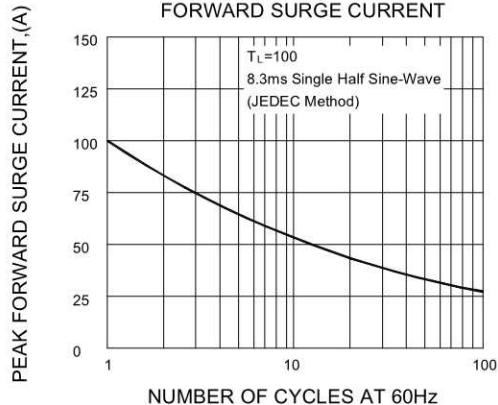
1. Thermal resistance from Junction to ambient and from junction to lead mounted on PCB with 0.3×0.3" (8.0 × 8.0mm) copper pad areas.
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES RS3A THRU RS3M

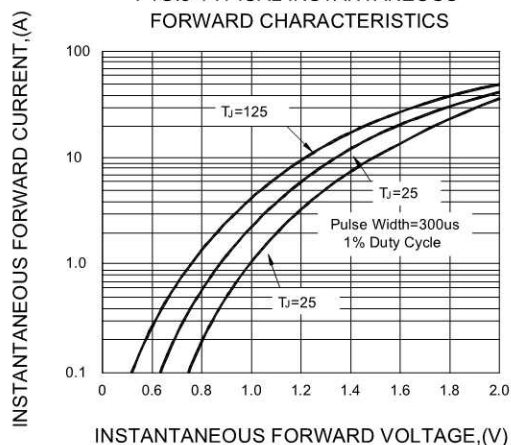
F1G.1-FORWARD CURRENT
DERATING CURVE



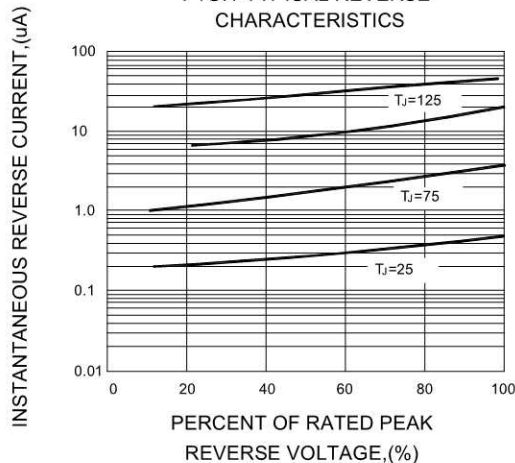
F1G.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT



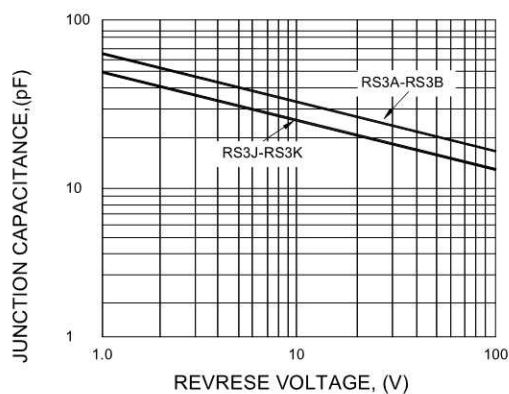
F1G.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE
CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TRANSIENT THERMAL IMPEDANCE

