



SHENZHEN FAITH TECHNOLOGY CO.,LTD

SURFACE MOUNT SUPER FAST RECTIFIER

RS5A THRU RS5M

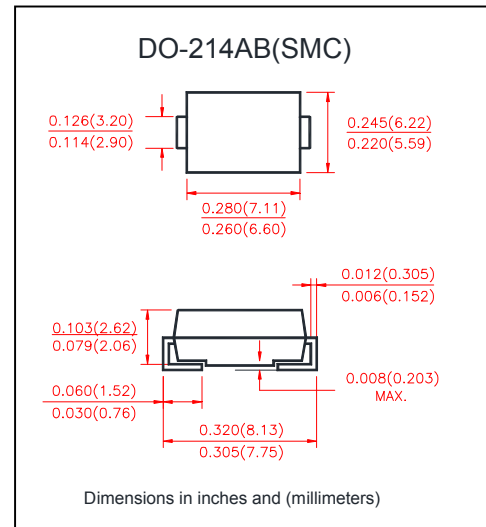
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 5.0 Ampere

FEATURES

- Plastic package has underwrites laboratory flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass Passivated chip junction
- High temperature soldering:
250°C/10 second at terminals

MECHANICAL DATA

- Case: JEDED DO-214AA molded plastic over glass passivated chip
- Terminals: Solder plated, Solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.007ounce, 0.25 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

MAXIMUM RATINGS & THERMAL CHARACTERISTICS

TYPE NUMBER	SYMBOLS	RS5A	RS5B	RS5D	RS5G	RS5J	RS5K	RS5M	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	$I_{F(AV)}$	5.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	100							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	47							°C/W
	$R_{\theta JL}$	13							
Operating junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

ELECTRICAL CHARACTERISTICS

TYPE NUMBER	SYMBOLS	RS5A	RS5B	RS5D	RS5G	RS5J	RS5K	RS5M	UNIT
Maximum Instantaneous Forward Voltage at 5.0A	V_F	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	I_R	$T_A = 25^\circ C$							μA
		$T_A = 125^\circ C$							
Typical Reverse Recovery Time at $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$	t_{rr}	150				250	500		ns

Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.3×0.3" (8.0×8.0mm) copper pad areas.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

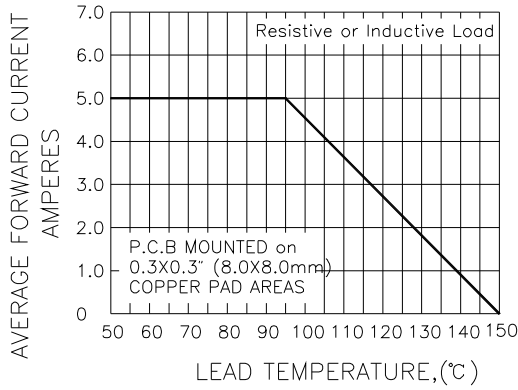


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

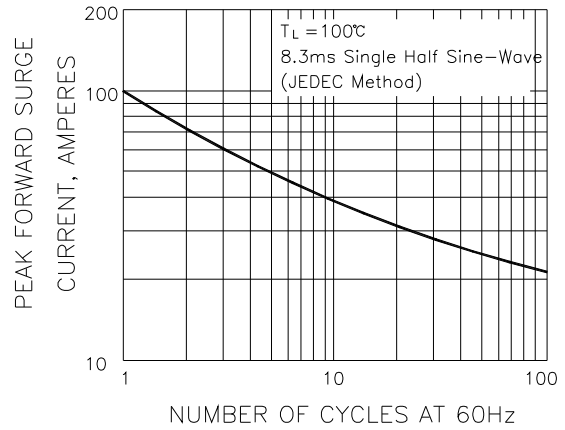


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

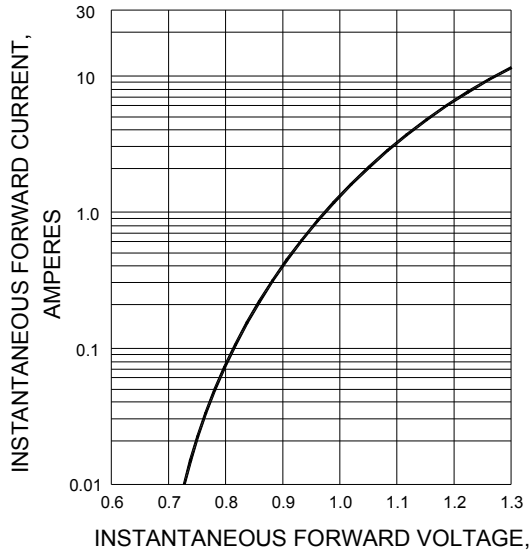


FIG.4-TYPICAL REVERSE CHARACTERISTICS

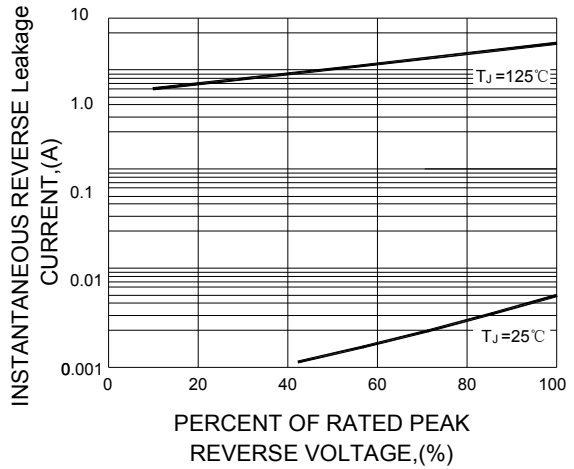


FIG.5-TYPICAL JUNCTION CAPACITANCE

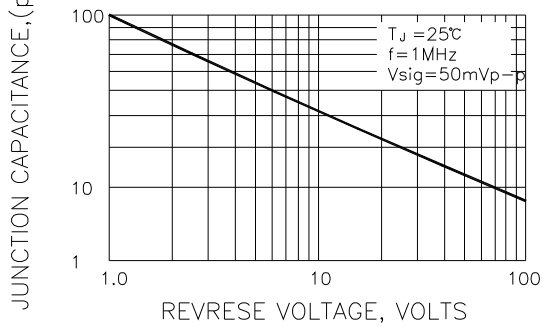


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

