



SHENZHEN FAITH TECHNOLOGY CO.,LTD

SURFACE MOUNT FAST SWITCHING RECTIFIER

RS3A THRU RS3M

VOLTAGE RANGE 50 to 1000 Volts

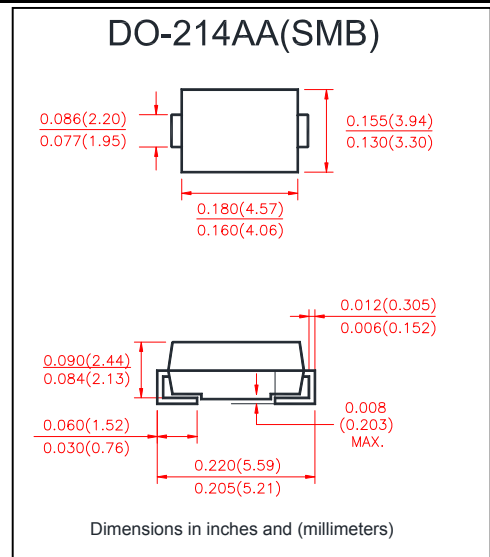
CURRENT 3.0 Ampere

FEATURES

- Plastic package has underwrites laboratory flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Fast switching for high efficiency
- 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

MAXIMUM RATINGS & THERMAL CHARACTERISTICS

	SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS 3K	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 $T_L=90^\circ\text{C}$	$I_{F(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=90^\circ\text{C}$	I_{FSM}	100							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	55							°C/W
	$R_{\theta JL}$	18							
Operating junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

ELECTRICAL CHARACTERISTICS

	SYMBOLS	RS 3AB	RS 3BB	RS 3DB	RS 3GB	RS 3JB	RS 3KB	RS 3MB	UNIT
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	I_R	$T_A = 25^\circ\text{C}$							μA
		$T_A = 125^\circ\text{C}$							
Typical Reverse Recovery Time at $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$	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 $0.27 \times 0.27''$ ($7.0 \times 7.0\text{mm}$) copper pad areas.



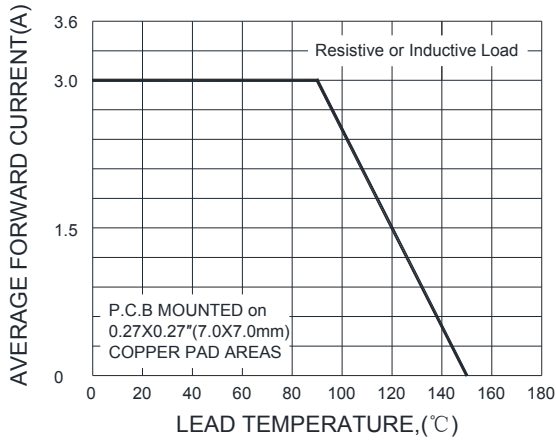
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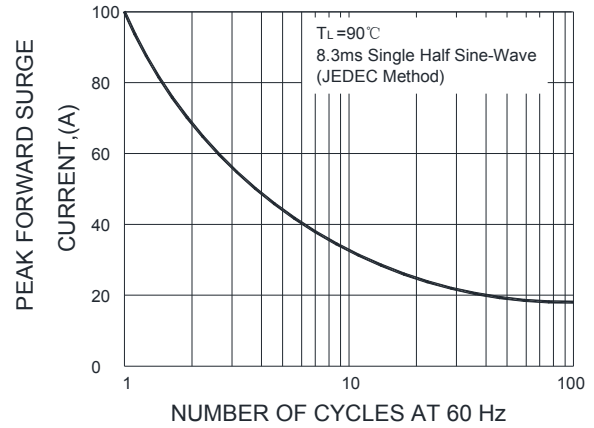
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RATINGS AND CHARACTERISTIC CURVES

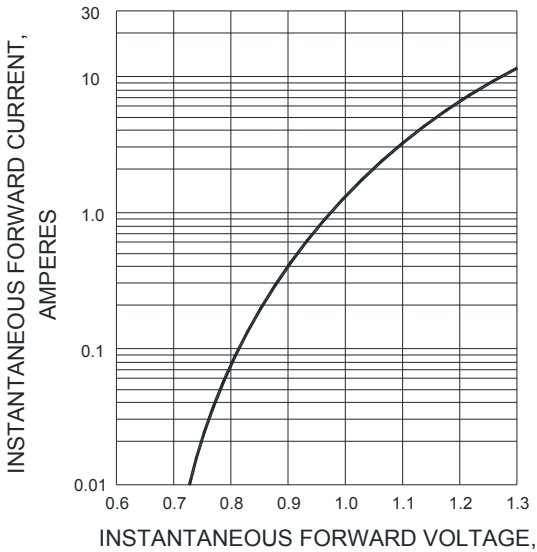
F1G.1-FORWARD CURRENT DERATING CURVE



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



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

