

SURFACEMOUNTRECTIFIERS

S3AB--S3MB

FEATURES

- Low profile package
- For surface mounted applications
- High current capability
- Built-in strain relief, ideal for automated placement
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals



Lead-free



MECHANICAL DATA

- Case: JEDEC DO-214AA, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD- 750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003 ounces, 0.093 gram

Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RWS}	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 at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	100							A

Thermal Characteristics

Characteristic	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	UNITS
Typical junction capacitance (NOTE 1)	C_J	35							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	40							°C/W
Operating junction and storage temperature range	$T_J T_{STG}$	-55-----+150							°C

Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	UNITS
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.15							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	10 100							μA

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

2. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm²) copper pad areas



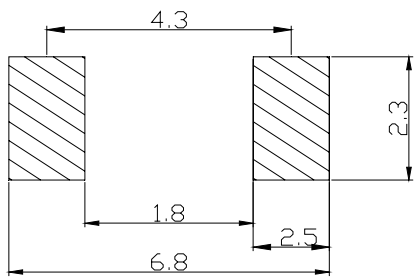
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PACKAGE OUTLINE DIMENSIONS

DO-214AA(SMB)		
Dim	Min	Max
A	4.30	4.70
B	3.30	3.70
C	2.00	2.30
D	5.05	5.55
E	0.10	0.30
F	0.95	1.55
G	0.20MAX	
H	2.10	2.50
I	1.85	2.15
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
S3AB--S3MB	DO-214AA(SMB)	3000/Tape&Reel



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FIG.1 -- FORWARD DERATING CURVE

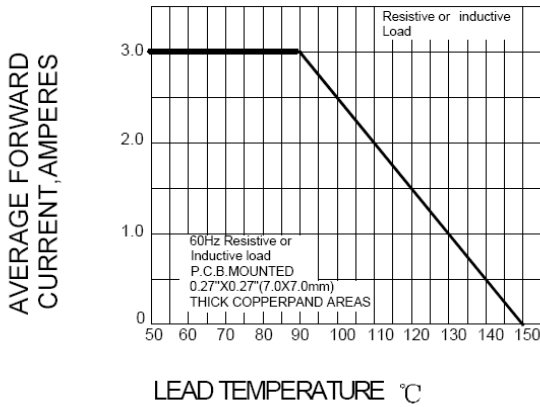


FIG.2 PEAK FORWARD SURGE CURRENT

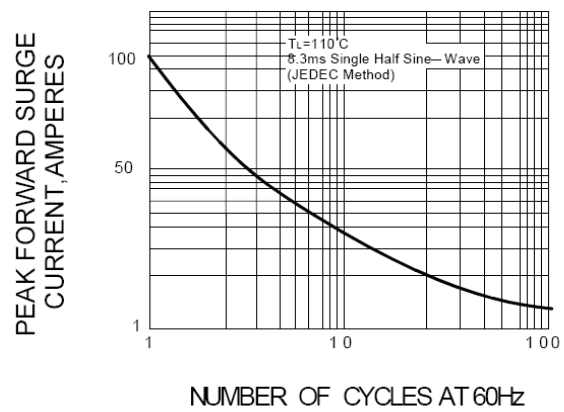


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

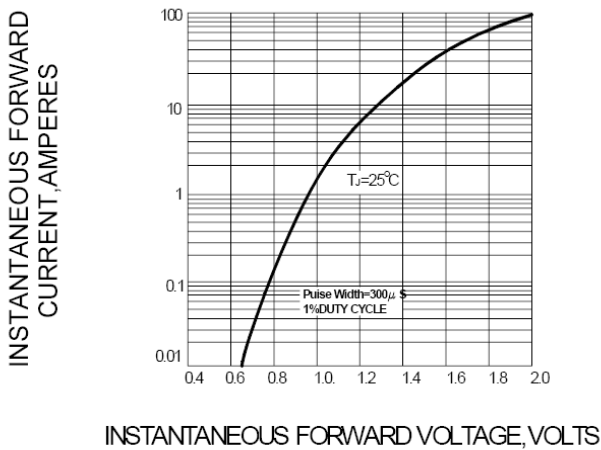


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

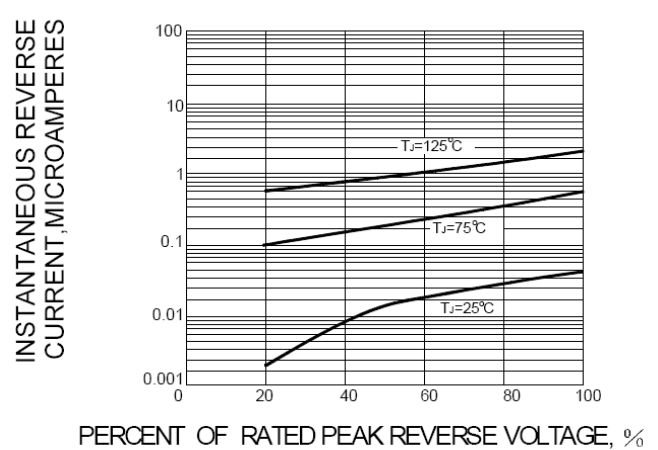


FIG.5-TYPICAL JUNCTION CAPACITANCE

