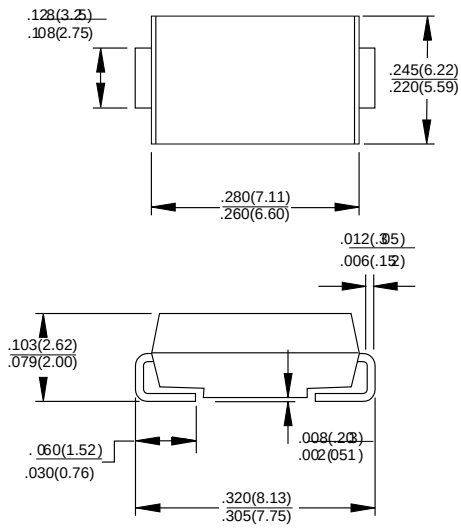
YEA SHIN TECHNOLOGY CO., LTD

S3A-A THRU S3M-A

SURFACE MOUNT RECTIFIER

VOLTAGE- 50 to 1000 Volts CURRENT- 3.0 Ampere

SMC/DO-214AB Unit:inch(mm)



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- glass passivated iunction
- High temperature soldering guaranteed: 260°C /10 seconds at terminals
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- Pb free product at available : 99% Sn above meet RoHS environment substance directive request
- AEC-Q101 qualified

MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.007 ounce, 0.21 gram

MAXIMUM RATINGSAND 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%.

PARAMETER	SYMBOLS	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	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 TL = 75°C	$I_{(AV)}$	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on ratedload (JEDEC method)	I_{FSM}	100.0							A
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.1							V
Maximum DC Reverse Current TA= 25°C at Rated DC Blocking Voltage TA=125°C	I_R	5.0 250							µA µA
Maximum Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	13.0 47.0							°C/W
Typical JunctionCapacitance (Note 1)	C_J	53.0							pF
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150							°C

NOTES: 1.Measured at 1.0 MHz and applied V=4.0 VDC.
2.8.0mm^2(.013mm thick) land areas.

DEVICE CHARACTERISTICS

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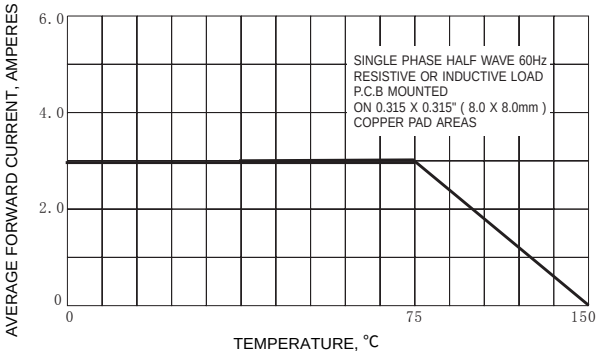

Fig.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

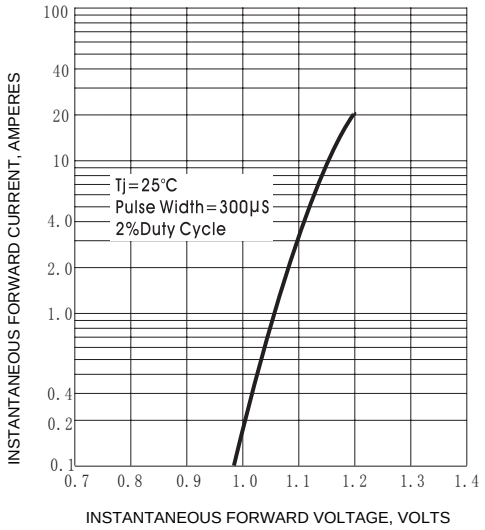

Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

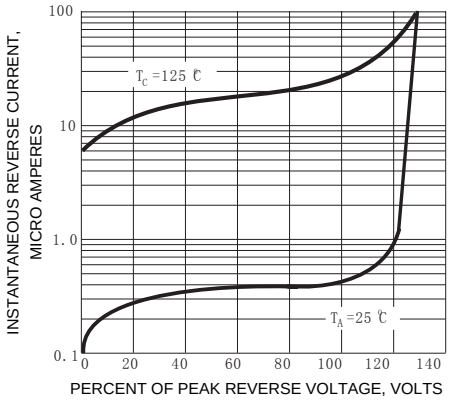

Fig.3-TYPICAL REVERSE CHARACTERISTICS

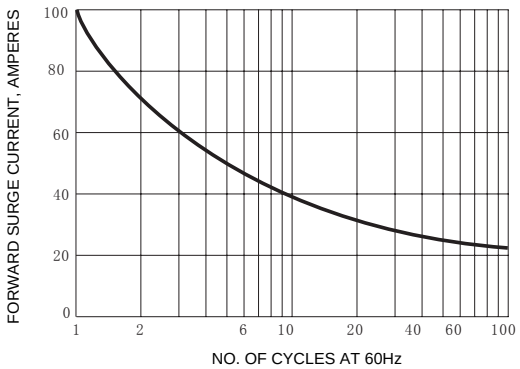

Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

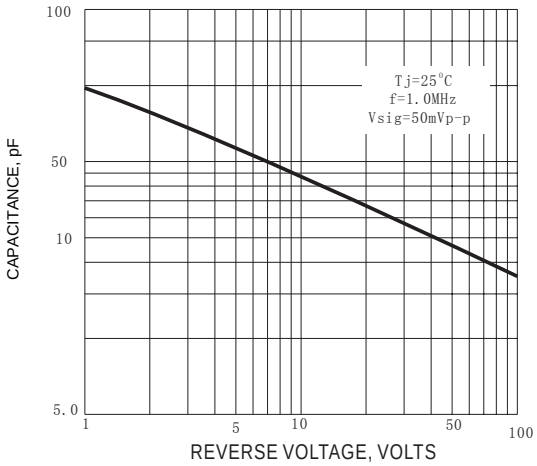

Fig.5-TYPICAL JUNCTION CAPACITANCE