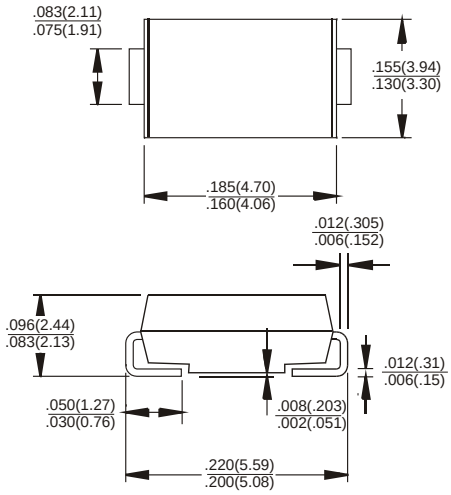
YEA SHIN TECHNOLOGY CO., LTD

FR2A THRU FR2M

FAST SWITCHING SURFACE MOUNT RECTIFIER
VOLTAGE- 50 to 1000 Volts CURRENT - 2.0 Amperes

SMB/DO-214AA Unit:inch(mm)



FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- High temperature soldering : 260 °C /10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request.

MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750
- Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)

MAXIMUM RATINGS AND ELECTRICAL CHARACTER

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	SYMBOLS	FR2A	FR2B	FR2D	FR2G	FR2J	FR2K	FR2M	UNIT
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=90°C	I(AV)	2.0							A
Peak Forward Surge Current 8.3ms single half sinewave superimposed on rated load (JEDEC method)	I_{FSM}	50.0							A
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.30							V
Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=125°C	I_R	5.0 200							μA
Maximum Reverse Recovery Time(Note 1) TJ=25°C	T_{RR}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C_J	40.0							pF
Maximum Thermal Resistance(Note 3)	RΘJL	20.0							°C / w
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150							°C

NOTES : 1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, Irr=0.25A
2. Measured at 1 MHz and applied Vr = 4.0 volts.
3. 8.0 mm2 (.013mm thick) land areas.

DEVICE CHARACTERISTICS

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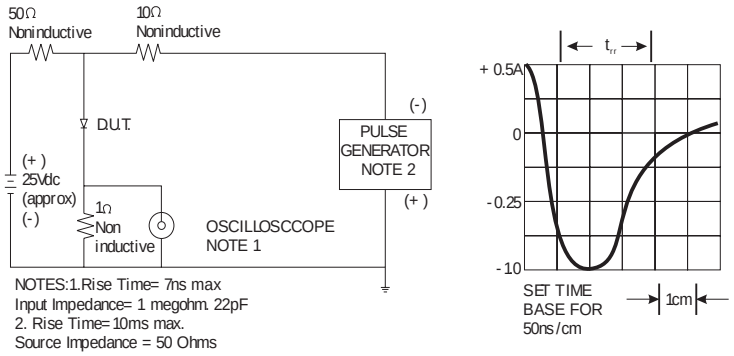

Fig.1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

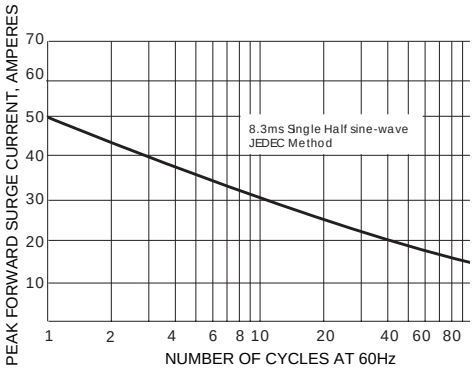

Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

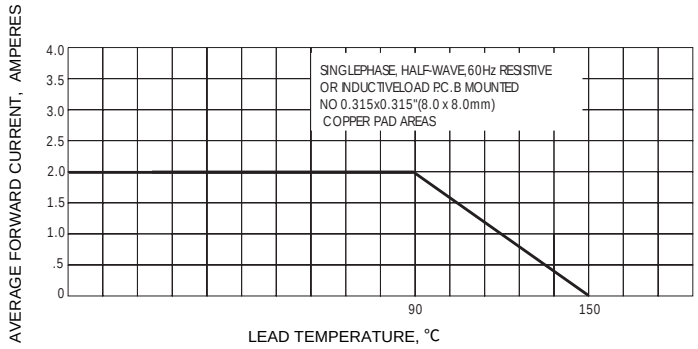

Fig.3-FORWARD CURRENT DERATING CURVE

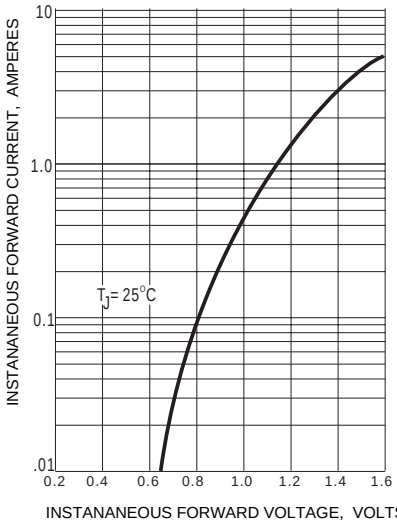

Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

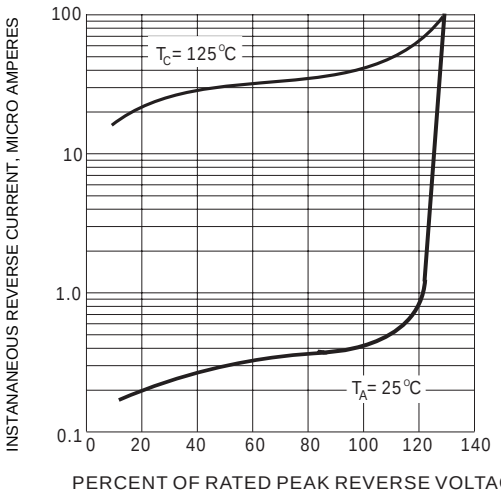

Fig.5-TYPICAL REVERSE CHARACTERISTICS

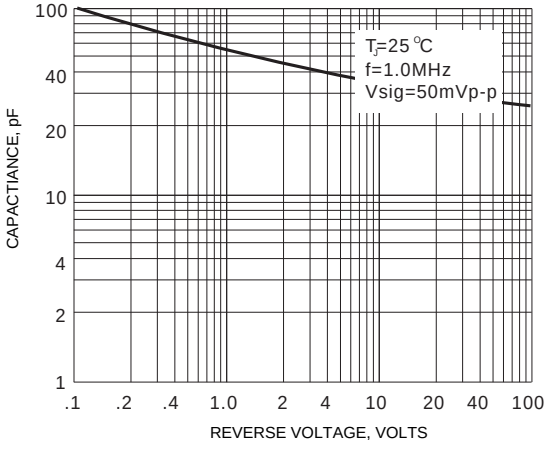

Fig.6-TYPICAL JUNCTION CAPACITANCE