



YEA SHIN TECHNOLOGY CO., LTD

U2A THRU U2M

Ultra Fast Recovery Rectifier

VOLTAGE- 50 to 1000 Volts CURRENT - 2.0 Amperes



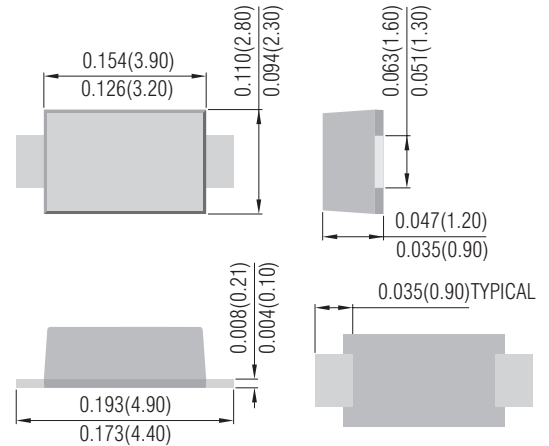
FEATURES

- Glass passivated chip
- Ultra fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0
- 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: SMF full molded plastic package
- Case : Molded plastic
- Polarity : Indicated by cathode band

SMF Unit:inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS	SYMBOL	U2A	U2B	U2D	U2G	U2J	U2K	U2M	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TL =75°C	I <sub>AV</sub>	2.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I <sub>FSM</sub>	60							A
Maximum forward Voltage at 2A DC	V <sub>F</sub>	1.0		1.3	1.5	1.7		V	
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5 100							μA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	20				10			pF
Maximum Reverse Recovery Time (Note 2)	T <sub>RR</sub>	50				75			ns
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	30							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Reverse Recovery Test Conditions: I<sub>F</sub>=.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=.25A.
- Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounted.

# DEVICE CHARACTERISTICS

## U2A THRU U2M

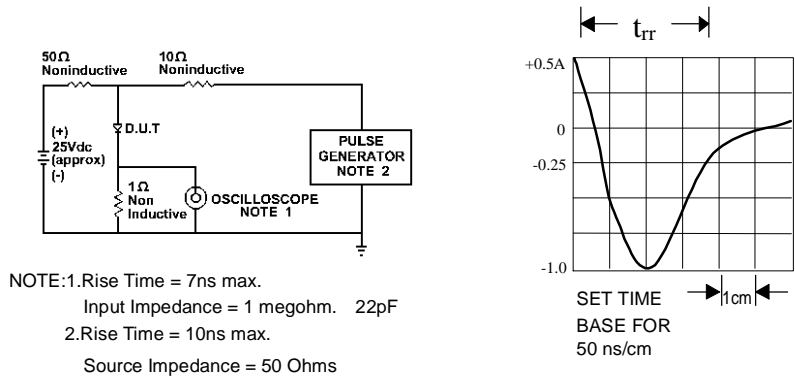


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

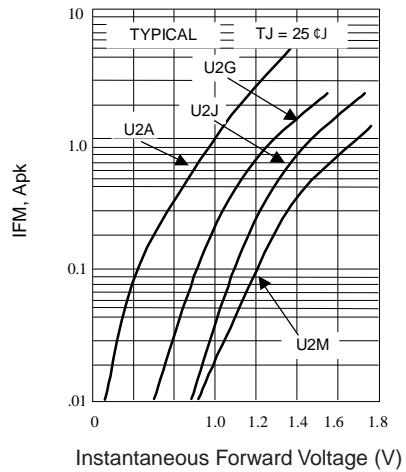


Fig. 2-FORWARD CHARACTERISTICS

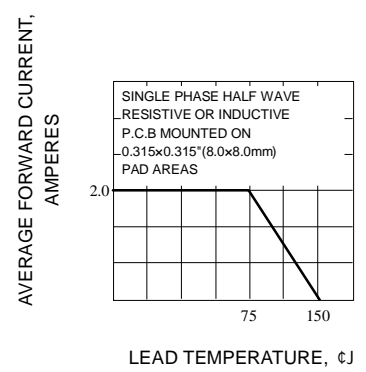


Fig. 3-FORWARD CURRENT DERATING CURVE

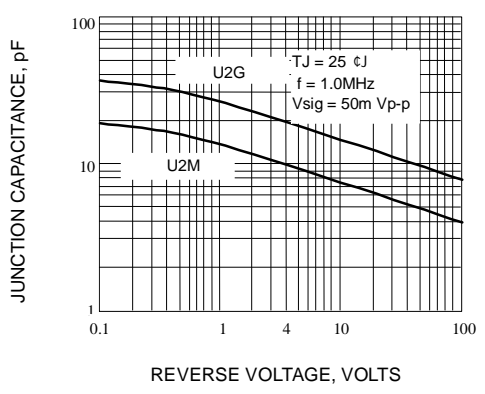


Fig. 4-TYPICAL JUNCTION CAPACITANCE

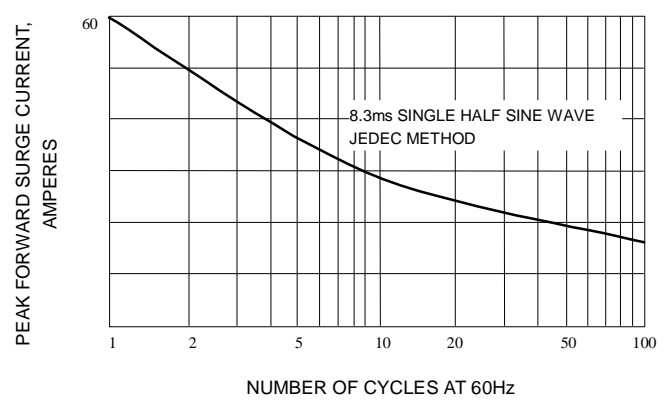


Fig. 5-PEAK FORWARD SURGE CURRENT