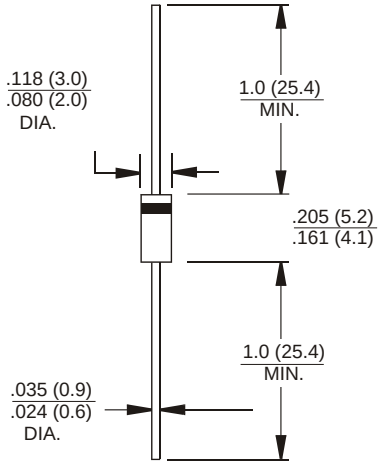
YEA SHIN TECHNOLOGY CO., LTD

UF100G THRU UF1010G

Ultra Fast Switching Rectifier
Glass Passivation Junction

VOLTAGE 50 to 1000 V CURRENT 1.0 A

DO-41 Unit:inch (mm)



Features

- Glass Passivation Rectifiers
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 Utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards at terminals
- Ultra fast switching for high efficiency
- High temperature soldering: 260℃
- Pb free product at available 99% Sn above meet RoHS environment substance directive request

Mechanical Data

- Cases: DO-41 molded plastic
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Band denotes cathode
- Mounting Position: Any

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%.

PARAMETER	SYMBOL	UF100G	UF101G	UF102G	UF104G	UF106G	UF108G	UF1010G	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 @TL=75℃	$I_{F(AV)}$	1							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
I^2t Rating for Fusing (t<8.3ms)	I^2t	3.736							A^2S
Maximum Instantaneous Forward Voltage at 1A	V_F	1			1.3	1.5	1.7		V
Maximum DC Reverse Current at T_J=25℃	I_R	5							uA
at Rated DC Blocking Voltage T_J=100℃		100							uA
Typical Junction Capacitance (Note 1)	C_J	17							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	60							℃/W
Reverse Recovery Time I_F=0.5A, I_R=1A, I_{rr}=0.25A	T_{RR}	50				75			ns
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							℃

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

DEVICE CHARACTERISTICS

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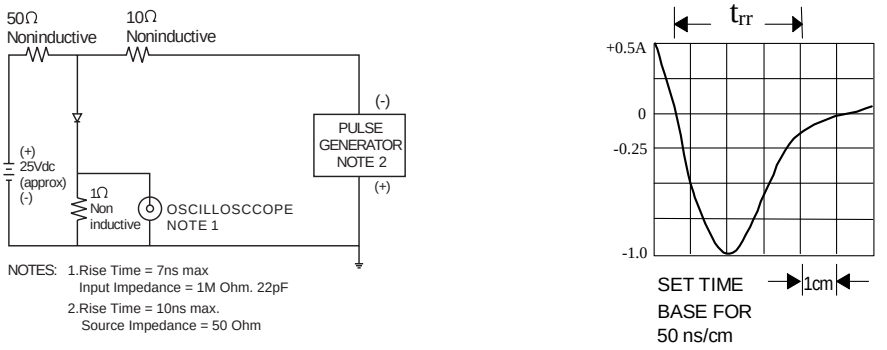

Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

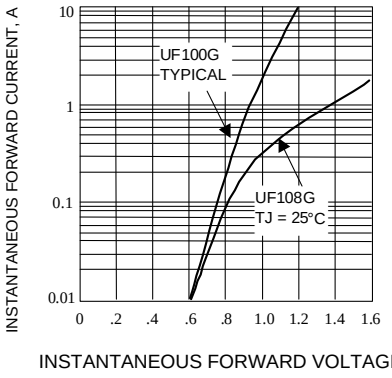

Fig. 2-FORWARD CHARACTERISTICS

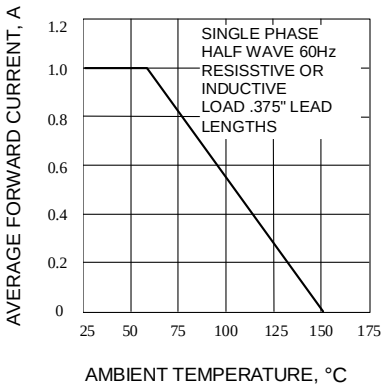

Fig. 3-FORWARD CURRENT DERATING CURVE

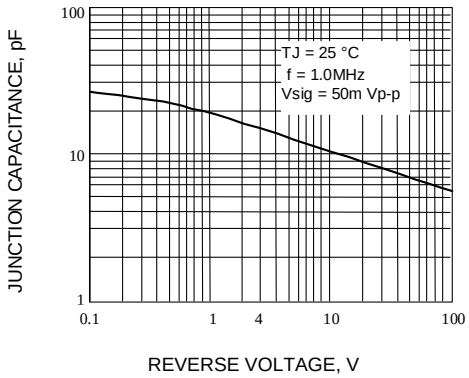

Fig. 4-TYPICAL JUNCTION CAPACITANCE

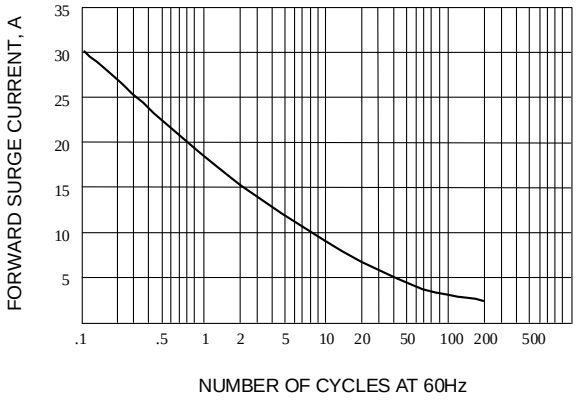

Fig. 5-PEAK FORWARD SURGE CURRENT