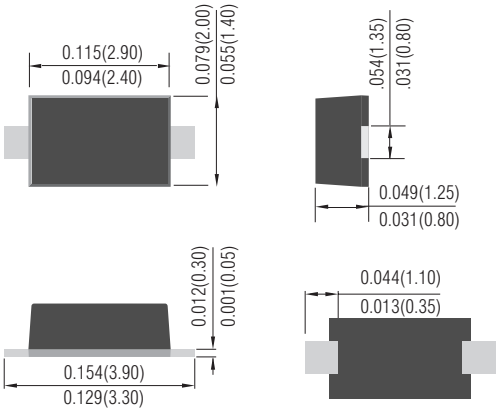
YEA SHIN TECHNOLOGY CO., LTD

UF1AS THRU UF1MS

Ultra Fast Recovery Rectifier

VOLTAGE- 50 to 1000 Volts CURRENT - 1.0 Amperes

SOD-123S Unit:inch(mm)



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 : Molded plastic
- Polarity : Indicated by cathode band

MAXIMUM RATINGS AND 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%

CHARACTERISTICS	SYMBOL	UF1AS	UF1BS	UF1DS	UF1GS	UF1JS	UF1KS	UF1MS	UNIT
MARKING CODE		U1	U2	U3	U4	U5	U6	U7	
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°C	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	30							A
Maximum forward Voltage at 1.0A	V_F	1.0			1.3	1.5	1.7		V
Maximum DC Reverse Current @TJ =25°C at Rated DC Blocking Voltage @TJ =100°C	I_R	5 100							uA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	50				75			ns
Typical Junction Capacitance (Note 2)	C_J	20				10			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	30							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

NOTES : 1.Reverse Recovery Test Conditions :I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Thermal Resistance junction to Lead.

DEVICE CHARACTERISTICS

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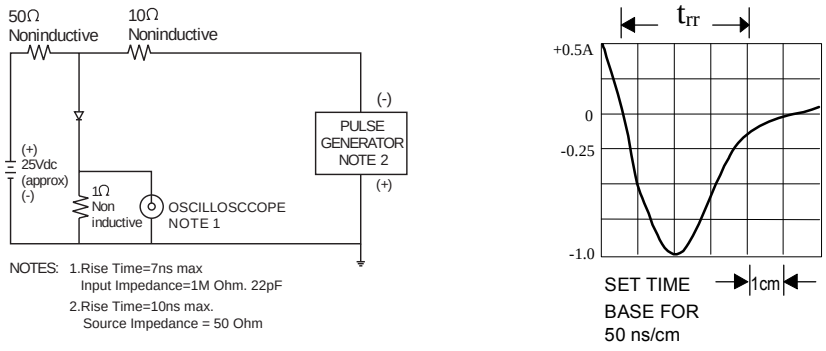

Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

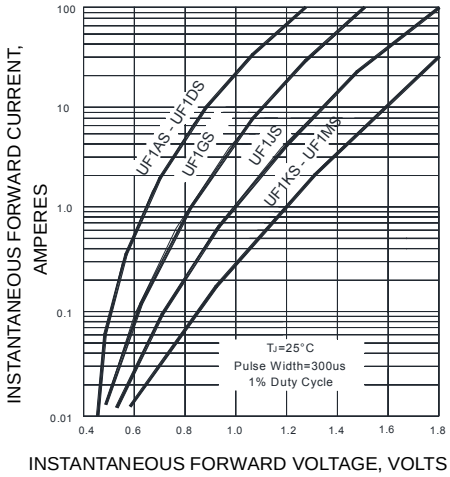

Fig. 2-FORWARD CHARACTERISTICS

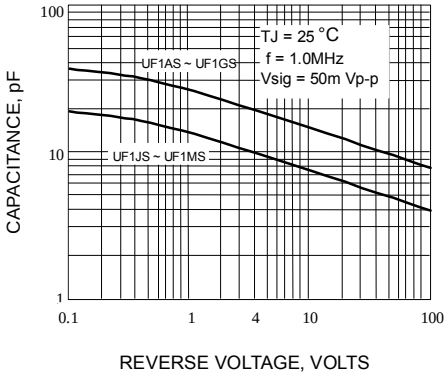

Fig. 3- TYPICAL JUNCTION CAPACITANCE

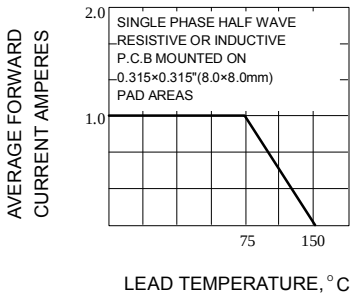

Fig. 4- FORWARD CURRENT DERATING CURVE

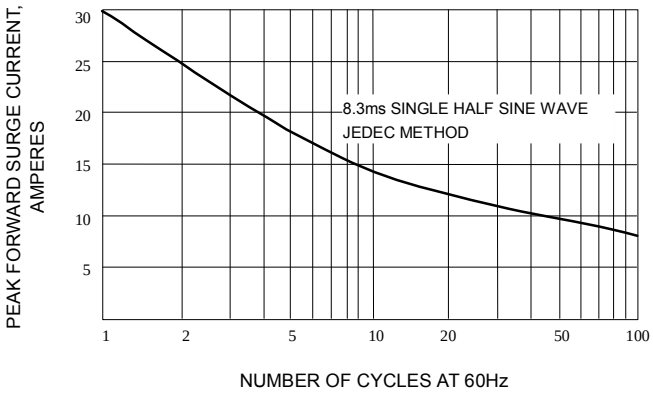

Fig. 5-PEAK FORWARD SURGE CURRENT