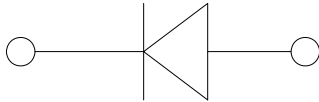
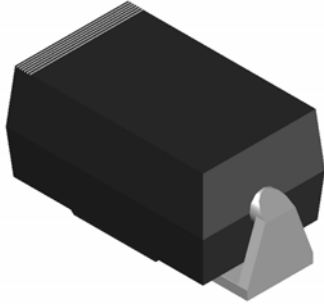


High Efficient Rectifier



Features

- High efficiency
- High current capability
- High Reliability
- High surge current capability
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Mechanical Data

- **Package:** SMA-W
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	US1A	US1B	US1D	US1G	US1J	US1K	US1M
Device marking code			US1A	US1B	US1D	US1G	US1J	US1K	US1M
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, T _a =50°C	I _O	A	1.0						
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave, 1 cycle, T _a =25°C	IFSM	A	30						
Storage Temperature	T _{stg}	°C	-55 ~+150						
Junction Temperature	T _j	°C	-55~+125						

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	US1A	US1B	US1D	US1G	US1J	US1K	US1M
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	IFM=1.0A	1.0			1.3	1.7		
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	μA	T _a =25°C	2.5						
	I _{RRM2}		T _a =100°C	150						
Reverse Recovery time	t _r	ns	I _F =0.5A I _R =1A I _{RR} =0.25A	50				75		
Typical junction capacitance	C _j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	20				15		

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	US1A	US1B	US1D	US1G	US1J	US1K	US1M
Thermal Resistance(Typical)	R _{θJ-A}	°C/W	55						



US1A THRU US1M

Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
US1A ~ US1M	F1	Approximate 0.067	5000	10000	80000	Reel

Characteristics (Typical)

FIG.1: I_o - T_a Curve

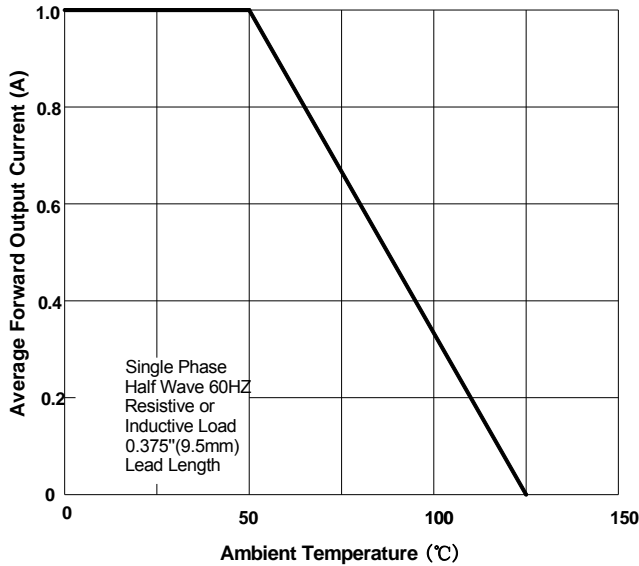


FIG.2: Surge Forward Current Capability

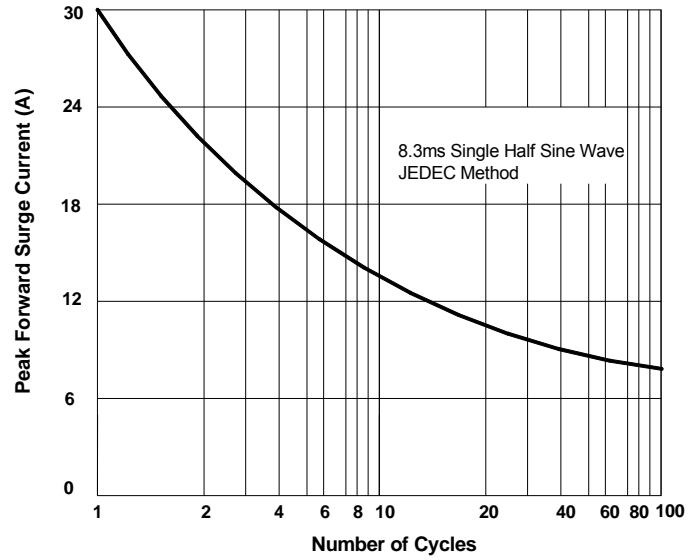


FIG.3: Forward Voltage

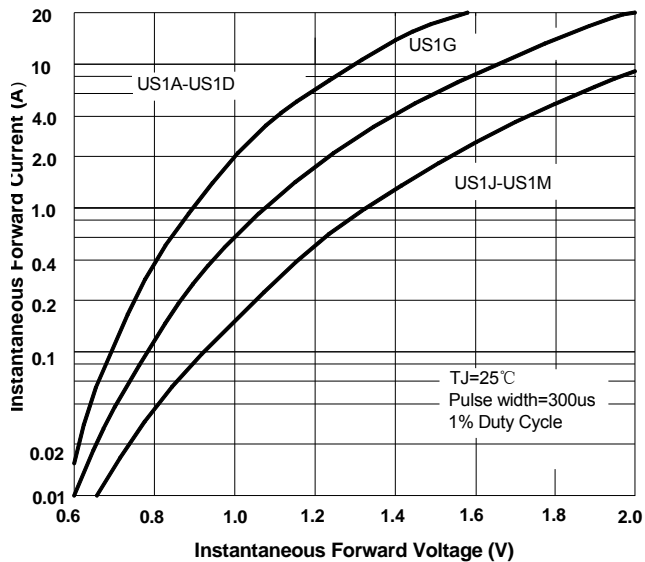
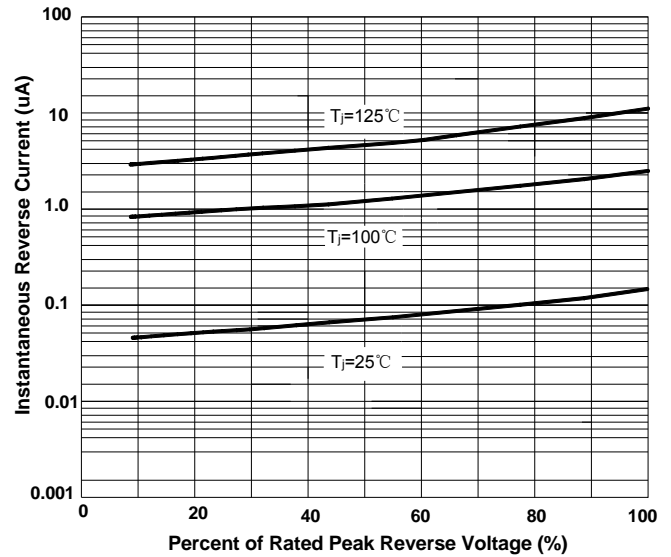


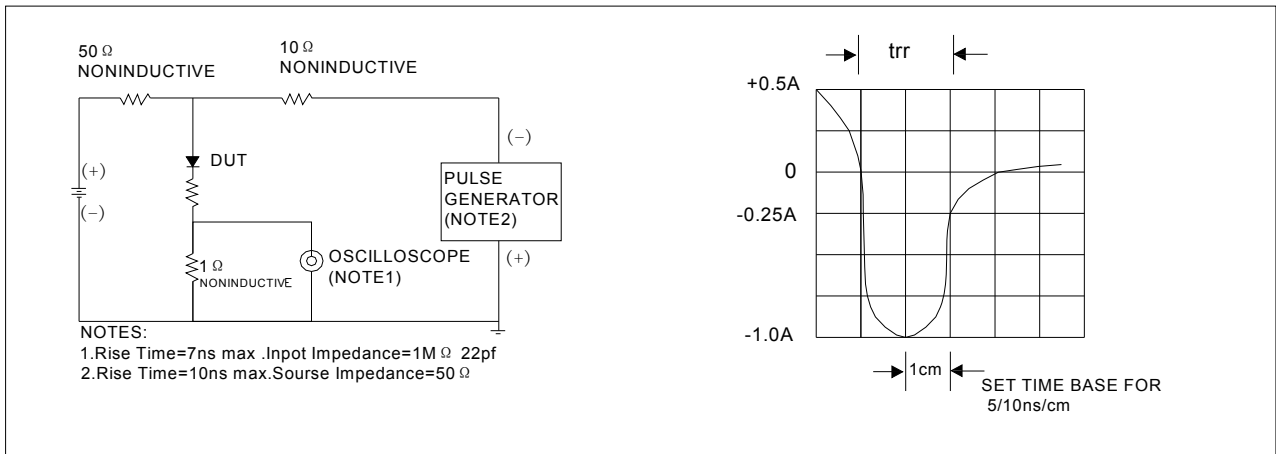
FIG.4: Typical Reverse Characteristics



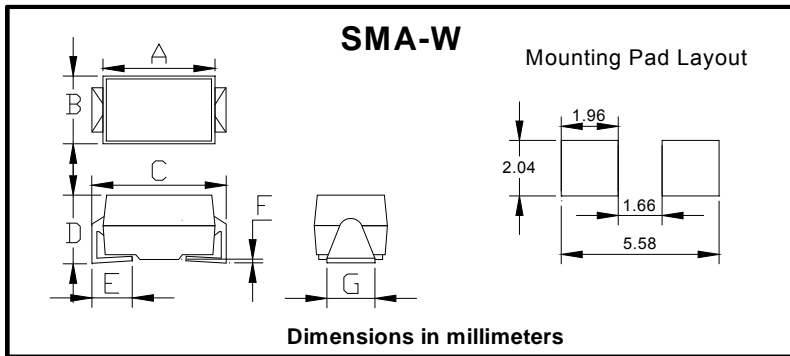


US1A THRU US1M

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



SMA-W		
Dim	Min	Max
A	4.00	4.60
B	2.40	2.65
C	4.80	5.31
D	2.05	2.45
E	0.80	1.50
F	0.10	0.20
G	1.15	1.80



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.