



Super Fast Recovery Rectifier

Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.

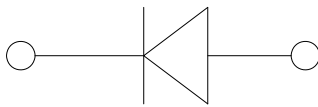
Mechanical Data

Package: R-1

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free

Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102

Polarity: Color band denotes the cathode end



Maximum Ratings (T_a=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	1S1G	1S2G	1S3G	1S4G	1S5G	1S6G	1S7G	1S8Gk
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	150	200	300	400	500	600
Maximum RMS Voltage	VRMS	V	35	70	105	140	210	280	350	420
Maximum DC blocking Voltage	VDC	V	50	100	150	200	300	400	500	600
Average Forward Current 4 60Hz sine wave Resistance load Ta 150	I _{F(AV)}	A	1.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25	I _{FSM}	A	30							
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25			60							
Current squared time @1ms t8.3 ms T _j =25 Rating of per diode	I ² t	A ² s	3.735							
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C _j	pF	18				12		9	
Storage Temperature	T _{stg}		-55 ~ +150							
Junction Temperature	T _j		-55 ~ +150							

Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	1S1G	1S2G	1S3G	1S4G	1S5G	1S6G	1S7G	1S8G
Maximum instantaneous forward voltage drop per diode	V _F	V	I _F =1.0A	0.95				1.3		1.7	
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25	5							
			T _j =125	100							
Maximum reverse recovery time	t _r	ns	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	35							



1S1G THRU 1S8G

Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	1S1G	1S2G	1S3G	1S4G	1S5G	1S6G	1S7G	1S8G
Typical Thermal Resistance	R J-A	/W	95							

Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1S1G~1S8G	D1	Approximate 0.19	5000	5000	50000	Tape
1S1G~1S8G	C1	Approximate 0.19	1000	1000	50000	Bulk

Characteristics(Typical)

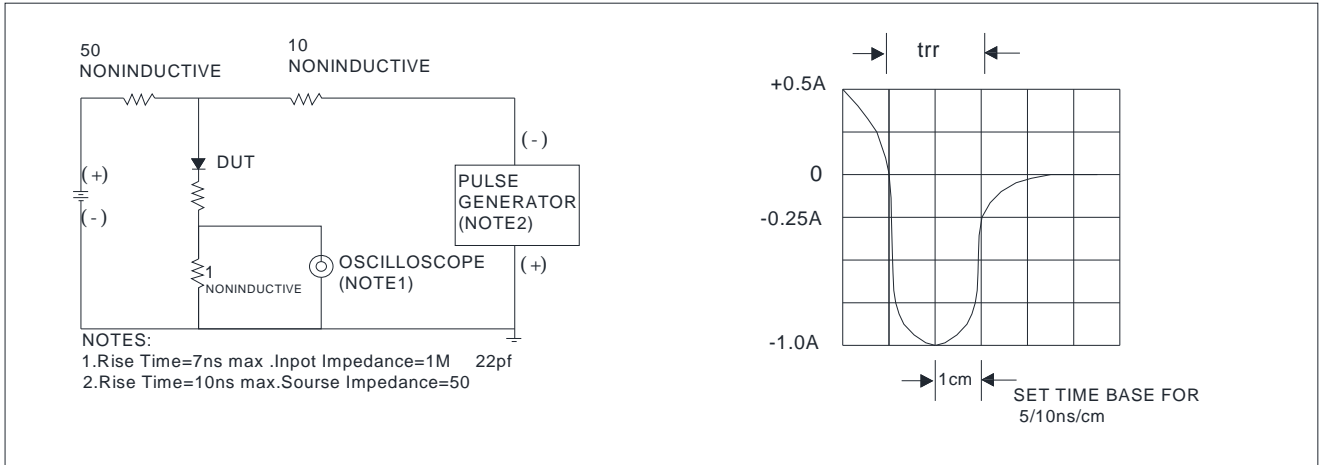
Instantaneous Forward Current (A)

Instantaneous Forward Voltage (V) For \varnothing S 0

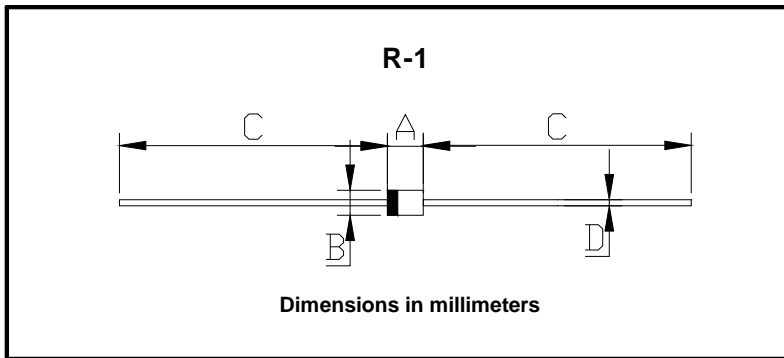


1S1G THRU 1S8G

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



Outline Dimensions



R-1		
Dim	Min	Max
A	3.00	3.30
B	2.00	2.70
C	25.4	/
D	0.53	0.64



1S1G THRU 1S8G

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