

1A,50-1000V High Efficient Rectifiers

Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260°C/10 seconds



R-1

Applications

- Small battery charger, Power supplies

Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted)										
Parameter	Symbol	1H1G	1H2G	1H3G	1H4G	1H5G	1H6G	1H7G	1H8G	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	1								A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	30								A
Operating junction temperature range	T _J	-55 to +150								°C
Storage temperature range	T _{STG}	-55 to +150								°C

Thermal-Mechanical Specifications (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R _{θJA}	72	°C/W
Thermal Resistance, Junction to Case	R _{θJC}	14	°C/W
Thermal Resistance, Junction to Lead	R _{θJL}	13	°C/W



Electrical Specifications (T _A =25°C unless otherwise noted)											
Parameter	Symbol	Test Conditions	1H1G	1H2G	1H3G	1H4G	1H5G	1H6G	1H7G	1H8G	Unit
Forward Drop Voltage	V _F	I _F =1A	1.00				1.30	1.70			V
Reverse leakage current @V _R	I _R	T _J =25°C	5								uA
		T _J =125°C	100								
Typical junction capacitance	C _J	4.0 V 1 MHz	20				15			pF	
Maximum reverse recovery time	trr	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	50				75			nS	

Note:

1. Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

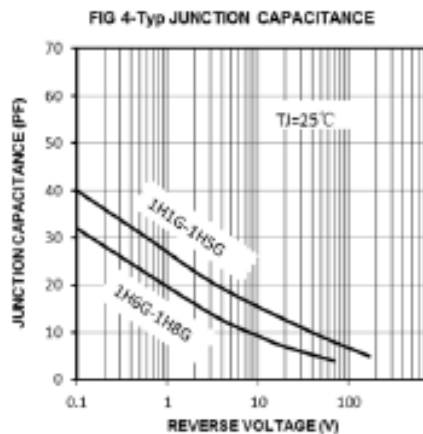
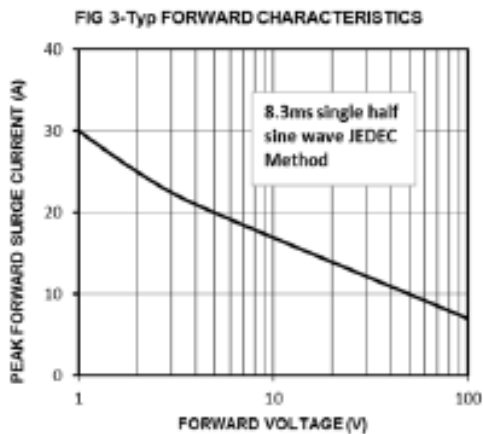
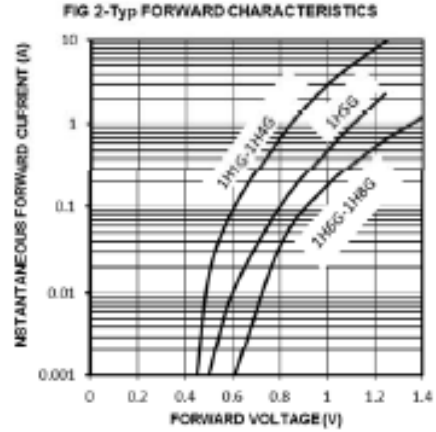
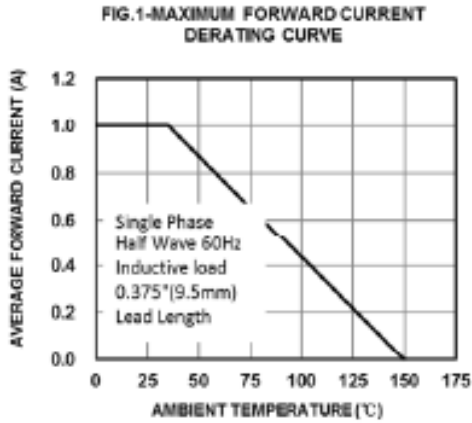
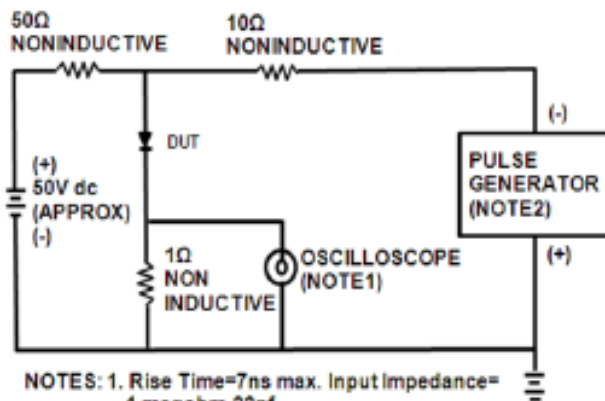
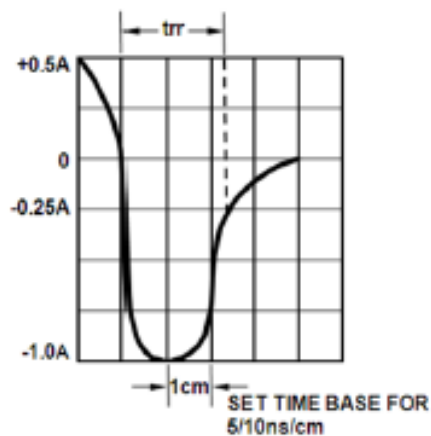


FIG.6 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

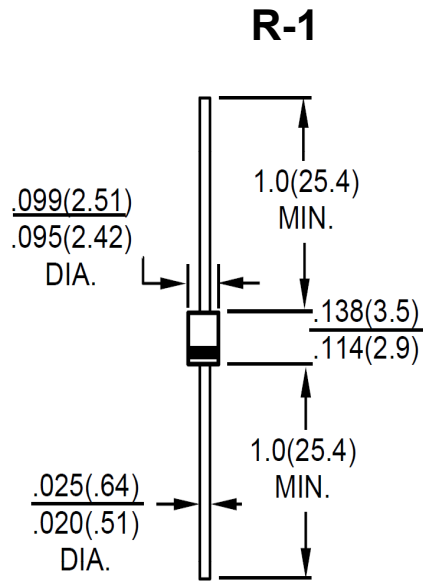


NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Source Impedance= 50 ohms



Package Outline Dimensions

in inches (millimeters)



Dimensions in inches and (millimeters)

Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.11.13	Modify document format

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