

Photoflash Rectifier



Case Style R-1

FEATURES

- Glass passivated chip junction
- Fast switching for high efficiency
- Low leakage current
- High forward surge capability
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC


RoHS
COMPLIANT

TYPICAL APPLICATIONS

For use in high voltage rectification of photoflash application.

MECHANICAL DATA

Case: R-1

Epoxy meets UL 94V-0 flammability rating

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

E3 suffix for consumer grade, meets JESD 201 class 1A whisker test

Polarity: Color band denotes cathode end

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	500 mA
V_{RRM}	1600 V
I_{FSM}	20 A
V_F	1.5 V
t_{rr}	300 ns
$T_J \text{ max.}$	175 °C

MAXIMUM RATINGS ($T_A = 25\text{ °C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1600	V
Maximum RMS voltage	V_{RMS}	1120	V
Maximum DC blocking voltage	V_{DC}	1600	V
Maximum average forward rectified current 0.375" (9.5 mm) lead length at $T_A = 55\text{ °C}$	$I_{F(AV)}$	500	mA
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	20	A
Maximum full load reverse current, full cycle average, 0.375" (9.5 mm) lead length at $T_L = 55\text{ °C}$	$I_{R(AV)}$	100	μA
Operating junction and storage temperature range	T_J, T_{STG}	- 65 to + 175	°C

ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ °C}$ unless otherwise noted)					
PARAMETER	TEST CONDITIONS		SYMBOL	VALUE	UNIT
Maximum instantaneous forward voltage drop	0.5 A		V_F	1.5	V
Maximum DC reverse current at rated DC blocking voltage		$T_A = 25\text{ °C}$	I_R	5.0	μA
Maximum reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$		t_{rr}	300	ns
Typical junction capacitance	4.0 V, 1 MHz		C_J	10	pF

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
GHR16-E3/54	0.2	54	5500	13" diameter paper tape and reel
GHR16-E3/73	0.2	73	3000	Ammo pack packaging

RATINGS AND CHARACTERISTICS CURVES

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

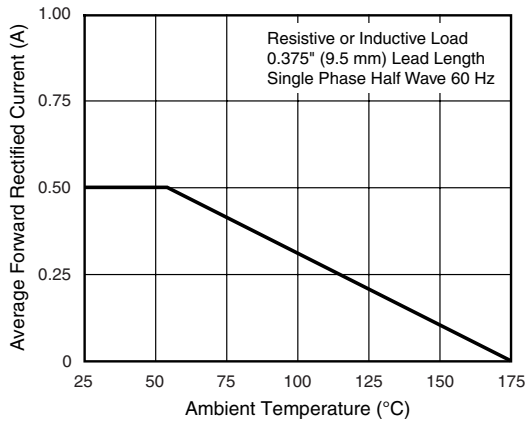


Figure 1. Maximum Forward Current Derating Curve

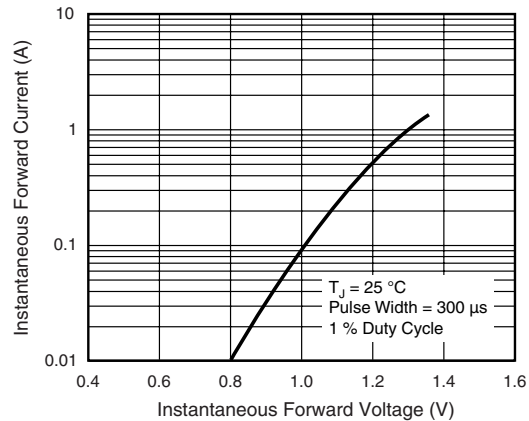


Figure 3. Typical Instantaneous Forward Characteristics

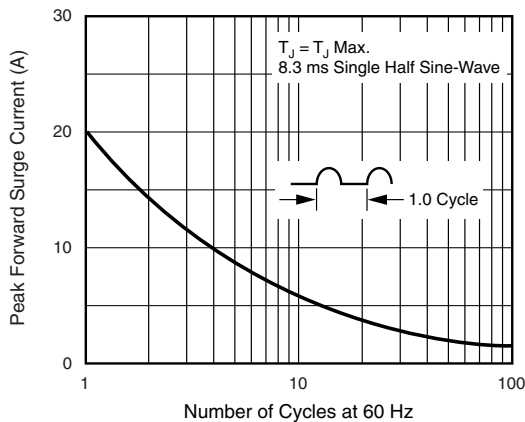


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

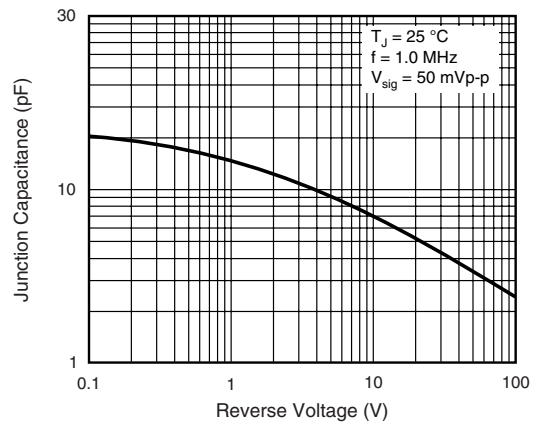
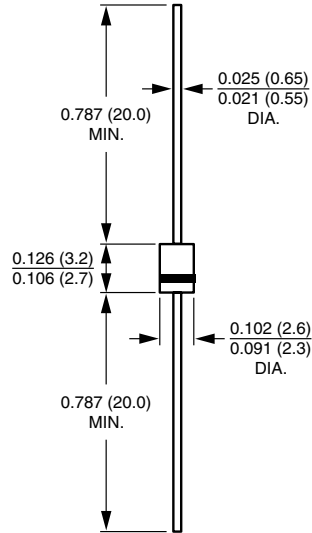


Figure 4. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

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