

HER151 thru HER158

1.5 A High Efficiency Rectifier

Rectifier Reverse Voltage 50 to 1000V

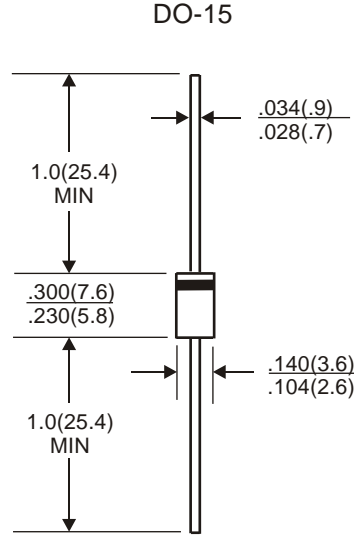


Features

- Diffused junction
- Fast switching for high efficiency
- High current capability and low Forward Voltage Drop
- Surge overload rating to 50A peak
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

Mechanical Data

Case: Molded plastic
 Terminals: Solder plated solderable per MIL-STD-202, Method 208
 Polarity: Cathode band
 Mounting Position: Any
 Weight: 0.4 grams (approx)



All dimensions inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
 For Capacitive load derate current by 20%.

Parameter	Symbol	HER 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	300	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	210	280	420	560	700	v
Maximum DC blocking voltage	VDC	50	100	200	300	400	600	800	1000	v
Maximum average forward rectified output current at TA=55°C	IF(AV)	1.5								A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	50								A
Maximum reverse recovery time TJ=25°C	Trr	50				75				nS
Typical thermal resistance per element	ReJA	40								°C/W
Typical junction capacitance per element	Cj	30				20				pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150								°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
 For Capacitive load derate by 20 %.

Parameter	Symbol	HER 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	Unit	
Maximum instantaneous forward voltage drop per leg at 1.5A	VF	1.0			1.3		1.85			v	
Maximum DC reverse current at rated DC blocking voltage per element	IR	10				100					μA
		TA =25°C				TA =125°C					

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted) HER151 thru HER158

Fig. 1 Reverse Recovery Time and Test Circuit Diagram

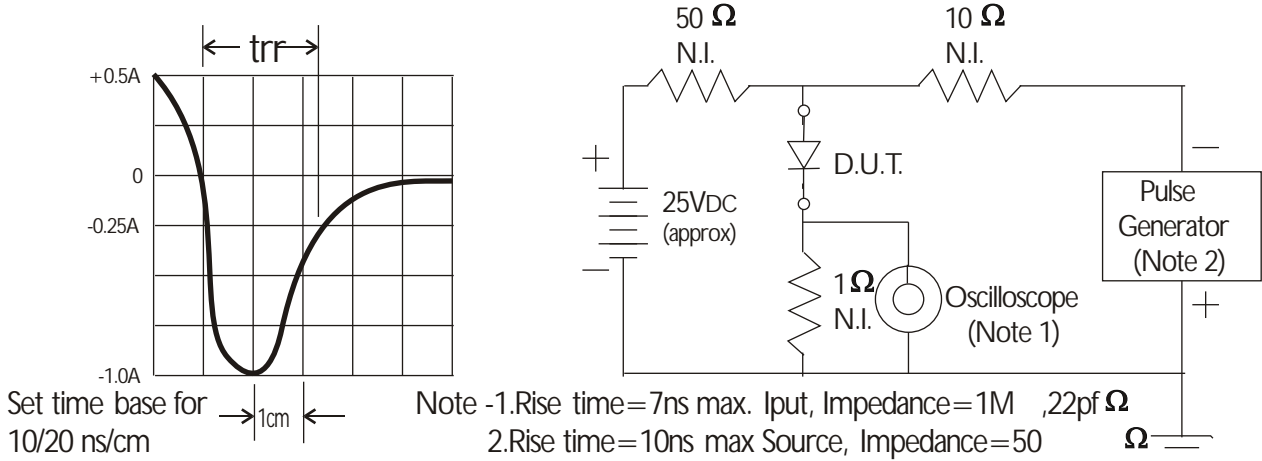


Fig. 2 Derating Curve for Output Rectified Current

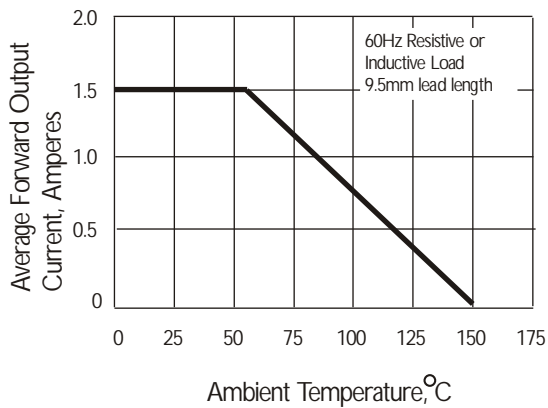


Fig. 3 Peak Forward Surge Current

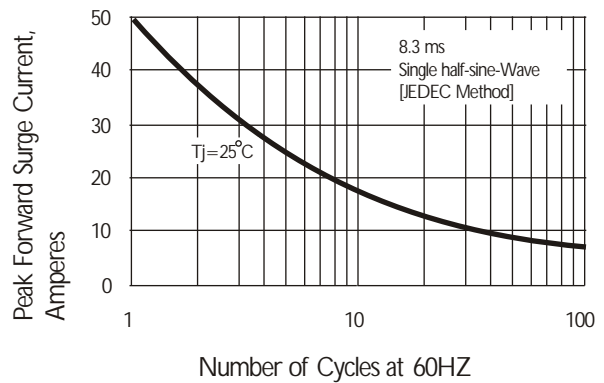


Fig. 4 Typical Instantaneous Forward Characteristics

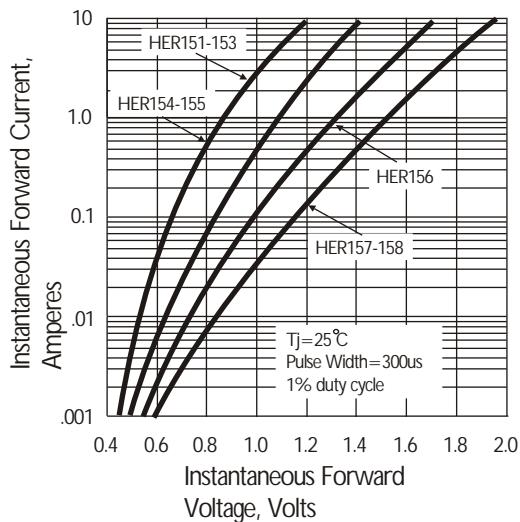


Fig. 5 Typical Junction Capacitance

