



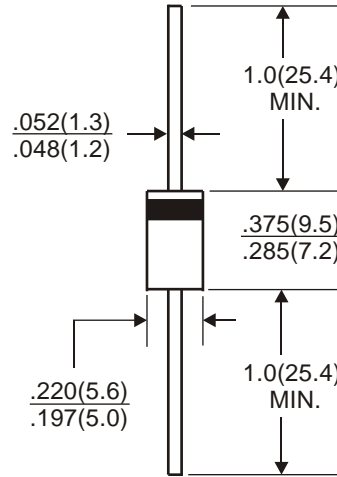
DO-27

Features

- Diffused junction
- Fast switching for high efficiency
- High current capability and low Forward Voltage Drop
- Surge overload rating to 200A 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: 1.10 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 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	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=50°C	IF(AV)	5.0								A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	200								A
Maximum reverse recovery time TJ=25°C	Trr	50				70				nS
Typical thermal resistance per element	ReJA	15								°C/W
Typical junction capacitance per element	Cj	75				50				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 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	Unit	
Maximum instantaneous forward voltage drop per leg at 5.0A	VF	1.0			1.3		1.85			V	
Maximum DC reverse current at rated DC blocking voltage per element	IR					10		100			µA

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted) HER501 thru HER508

Fig. 1 Reverse Recovery Time and Test Circuit Diagram

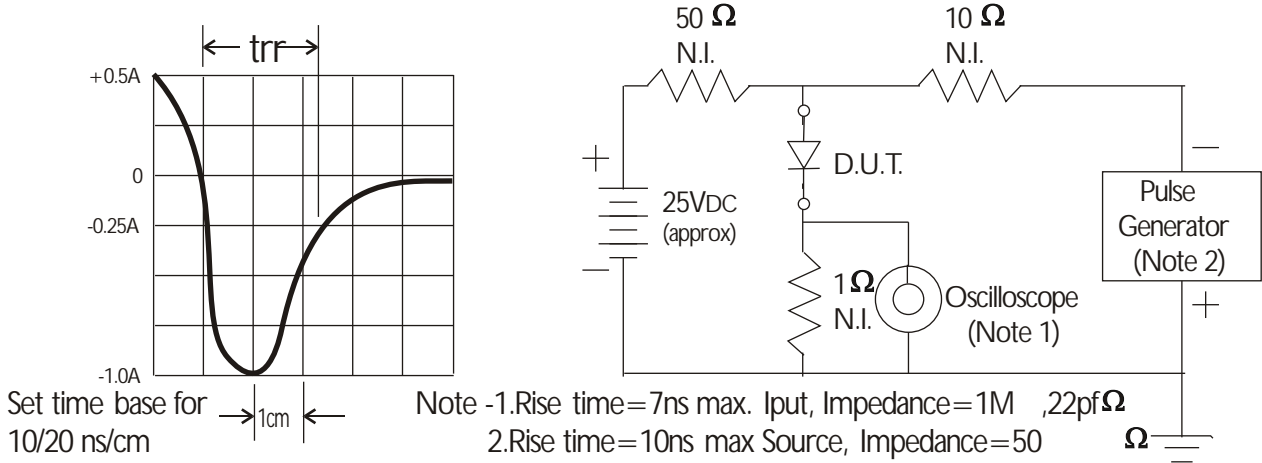


Fig. 2 Derating Curve for Output Rectified Current

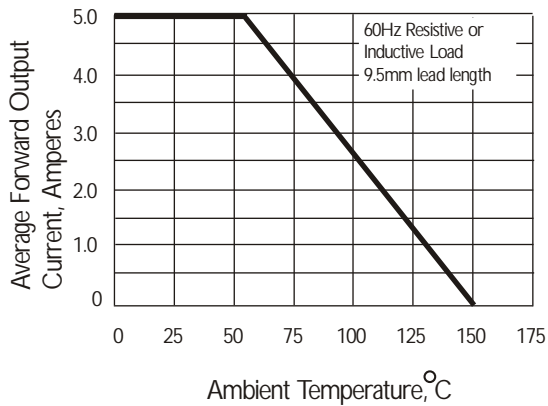


Fig. 3 Peak Forward Surge Current

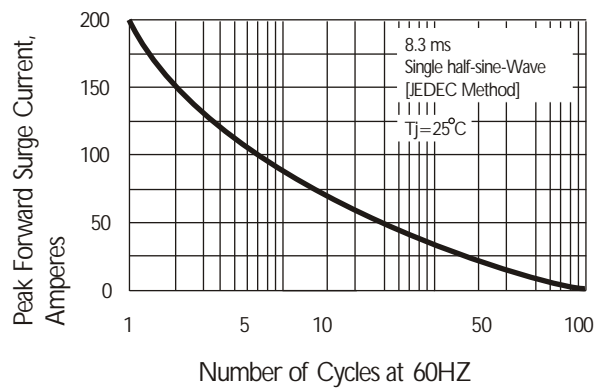


Fig. 4 Typical Instantaneous Forward Characteristics

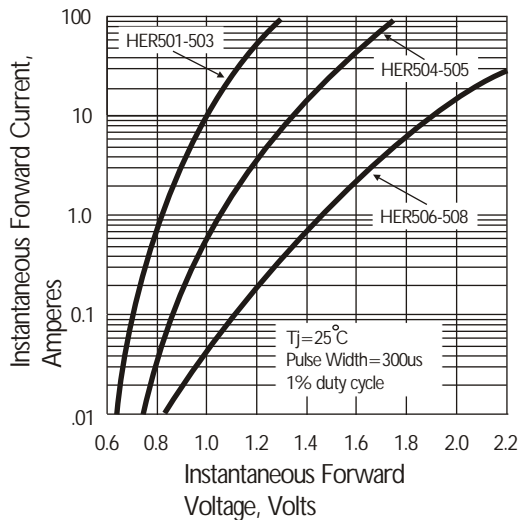


Fig. 5 Typical Junction Capacitance

