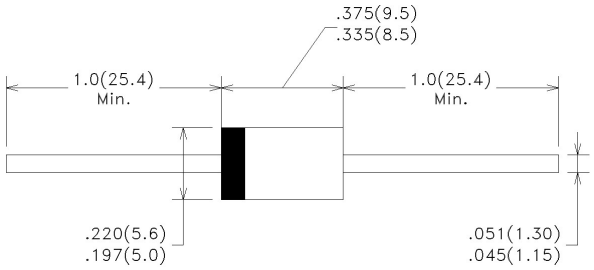
HER501G THRU HER508G

Plastic High-Efficiency Rectifiers

Package Outline Dimensions in mm (inches)

DO27



Reverse Voltage - 50~1000 V

Forward Current - 5.0 A

Features

- Glass Passivated Die
- Superfast Recovery times for high efficiency
- Low leakage current
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Typical Applications

- For use in switching power Supplies.

Mechanical Data

- Case:DO27 Plastic Package
- Polarity:Color band denotes cathode end

Maximum ratings

Ratings at TA=25℃ (unless otherwise specified)

Parameter	Symbol	HER 501G	HER 503G	HER 505G	HER 506G	HER 507G	HER 508G	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	50	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	200	400	600	800	1000	V
Maximum average forward rectified current (Note1)	$I_{F(AV)}$	5.0						A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150						A
Storage temperature range	T_S	-55 to 150						°C
Operating Junction temperature range	Tj	-55 to 150						°C
Thermal Resistance (Note1)	R_{thJA}	25						°C /W

Note1: Vertical P.C.B. mounting, 12.7 mm lead length with 63.5 mm x 63.5 mm copper pad.

Electrical characteristics

Ratings at TA=25℃ (unless otherwise specified)

Parameter	Test Conditions	Symbol	HER 501G	HER 503G	HER 505G	HER 506G	HER 507G	HER 508G	Unit
Maximum forward voltage	IF=5.0 A	VF	1.0		1.3	1.7			V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	5.0						μA
	TA=125°C		150						
Maximum Reverse Recovery Time	RG1	Trr	50			70			ns

Typical Characteristics

Fig.1 Maximum Average Forward Current Rating

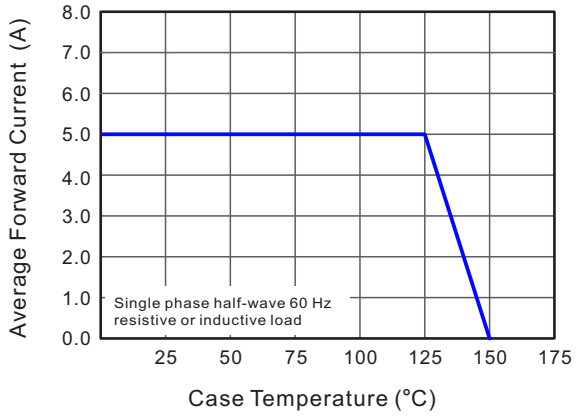


Fig.2 Typical Reverse Characteristics

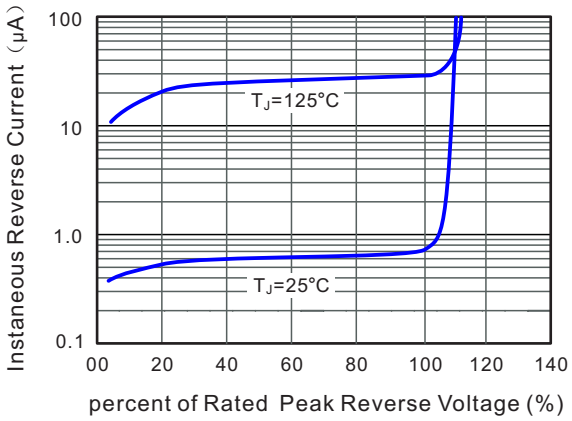


Fig.3 Typical Forward Characteristics

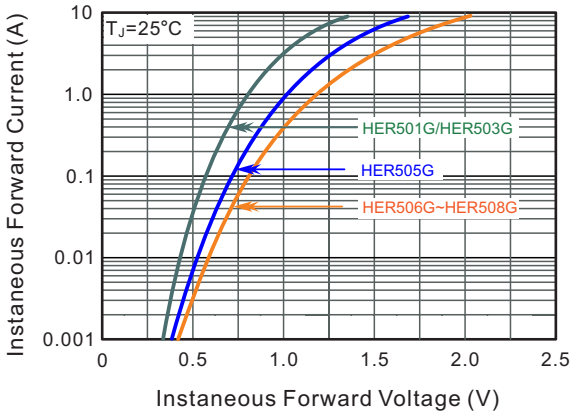


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current