

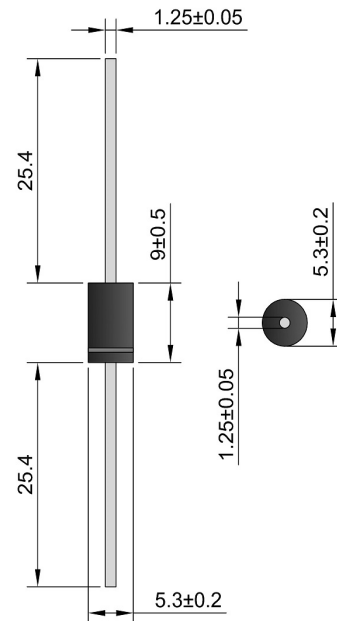
Features

- Diffused Junction
- Low Forward Voltage Drop
- High Surge Current Capability
- High Reliability
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**

DO-201AD



Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	HER 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}									
DC Blocking Voltage	V_R									
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A = 55^\circ\text{C}$	I_O	5.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150								A
Forward Voltage @ $I_F = 5.0\text{A}$	V_{FM}	1.0			1.3		1.7			V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	10				100				μA
Reverse Recovery Time (Note 2)	t_r	50				75				nS
Typical Junction Capacitance (Note 3)	C_J	45				36				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	R_{JA}	20								$^\circ\text{C}/\text{W}$
Typical Thermal Resistance Junction to Lead (Note 1)	R_{JL}	5.0								
Operating Temperature Range	T_J	-65 to +125								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150								$^\circ\text{C}$

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
2. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
3. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.

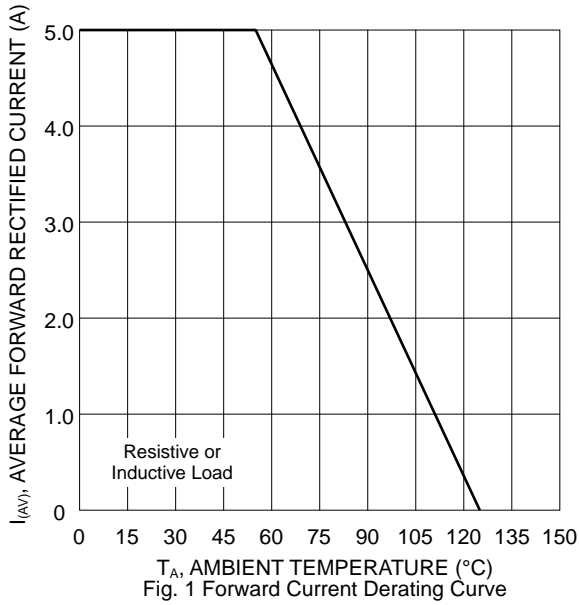


Fig. 1 Forward Current Derating Curve

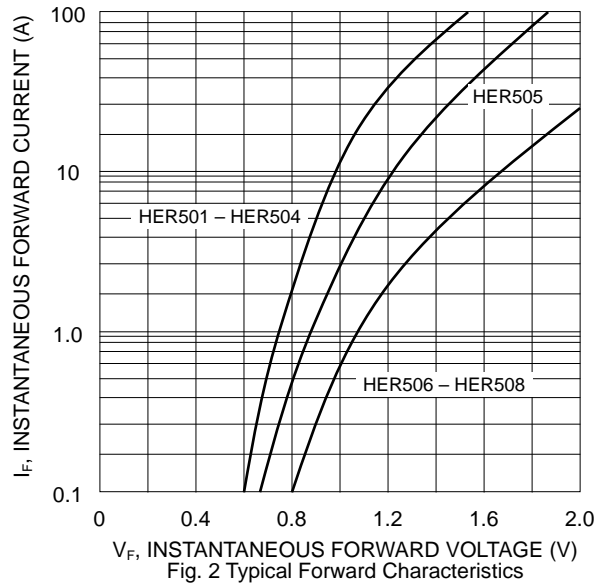


Fig. 2 Typical Forward Characteristics

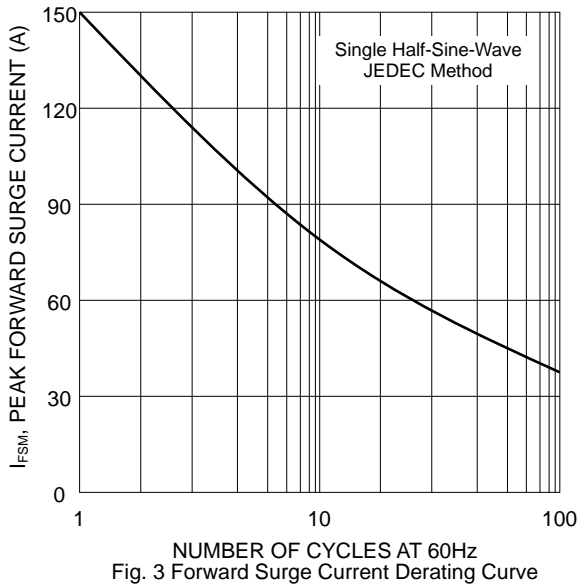


Fig. 3 Forward Surge Current Derating Curve

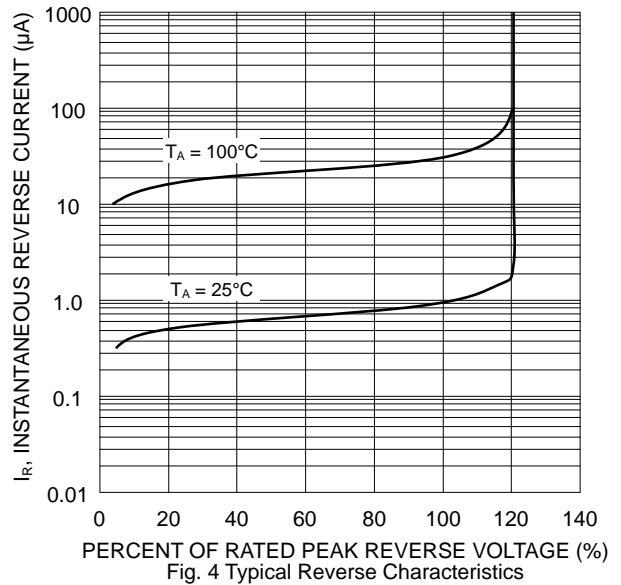


Fig. 4 Typical Reverse Characteristics

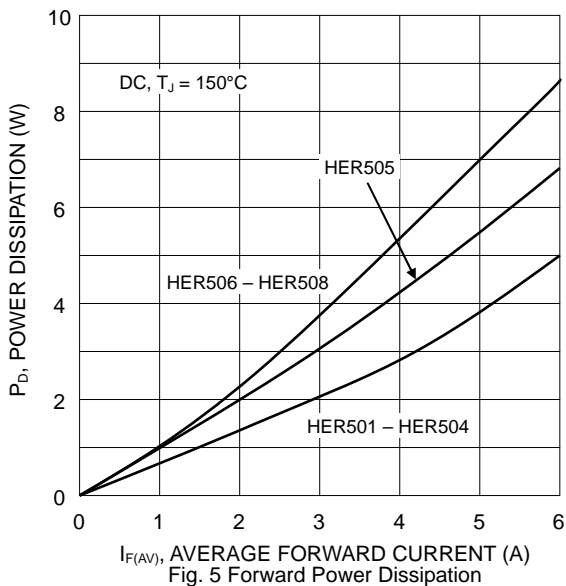


Fig. 5 Forward Power Dissipation

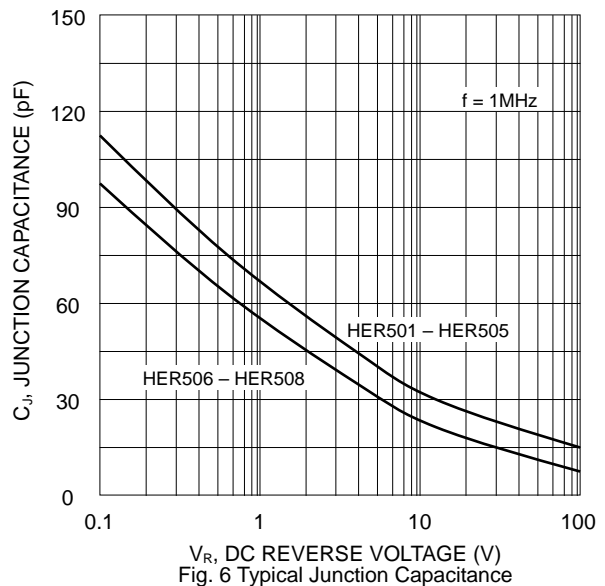
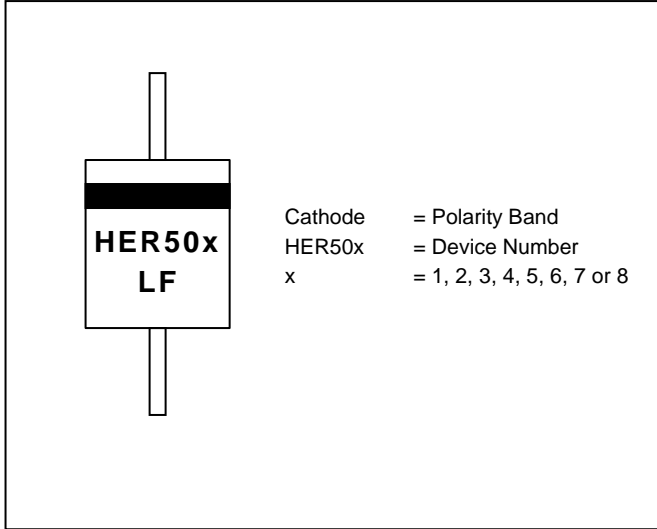
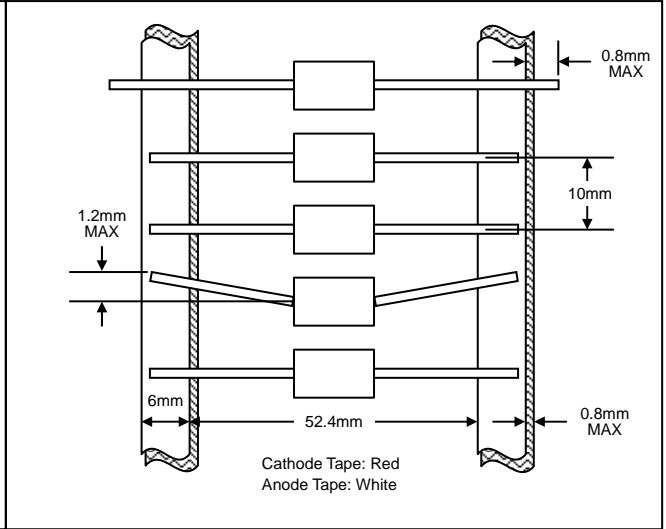


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



TAPING SPECIFICATIONS



PACKAGING INFORMATION

TAPE & REEL

330mm
 Product ID Label
 80±5mm

TAPE & BOX

150mm
 255mm
 75mm
 Product ID Label
 Inspection Hole (both ends)

BULK

40mm
 200mm
 85mm

Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
TAPE & REEL	330	1,200	370 x 370 x 420	6,000	10.0
TAPE & BOX	255 x 75 x 150	1,200	400 x 273 x 415	12,000	17.0
BULK	200 x 85 x 40	500	459 x 214 x 256	12,500	16.0