

High Efficiency Silicon Rectifiers

Reverse Voltage - 100 to 1000 V

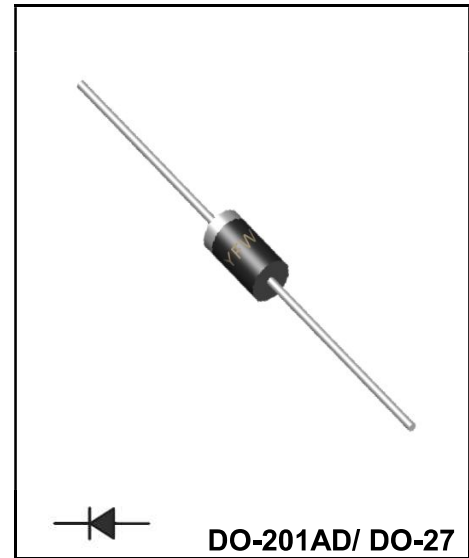
Forward Current – 5 A

FEATURES

- ◆For surface mounted applications
- ◆Low profile package
- ◆Open Junction chip
- ◆Ideal for automated placement
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: DO-201AD/ DO-27
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 0.98g / 0.0345oz



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	HER 502G	HER 503G	HER 504G	HER 505G	HER 506G	HER 507G	HER 508G	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200.0							A
Maximum Instantaneous Forward Voltage at 5.0A	V_F	0.95	1.25		1.65			V	
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	I_R	10 500							μA
Maximum reverse recovery time ^(Note 1)	T_{rr}	50				75			nS
Typical Junction Capacitance ^(Note 2)	C_j	100.0							pF
Typical Thermal Resistance	$R_{\theta JA}$	65							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^\circ\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

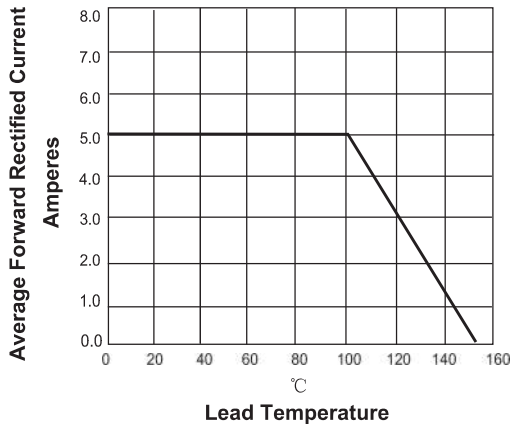


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

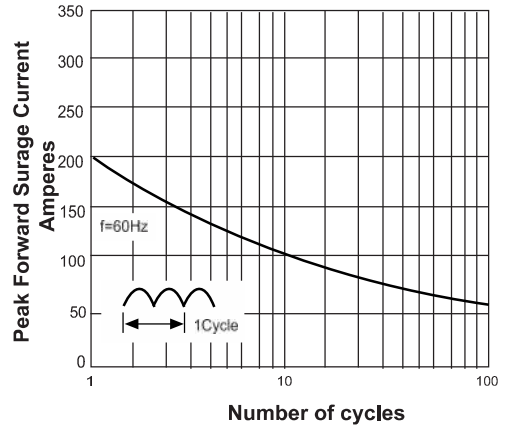


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

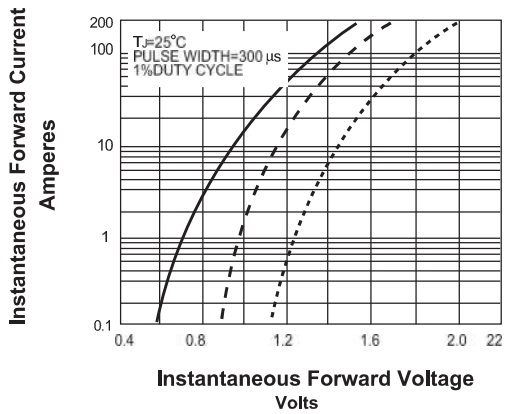
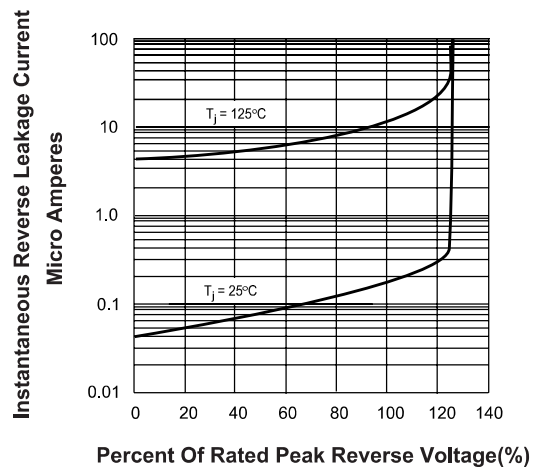


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Ordering information

Package	Packing Description	Packing Quantity
DO-201AD/DO-27	bulk	250PCS/500PCS/Inner Box 12500PCS/Carton
	ammo pack	1000PCS/1250PCS/Inner Box 10000PCS/12500PCS/Carton

Package Dimensions

DO-201AD/DO-27

Dim.	Millimeter(mm)		INCHES	
	Min.	Max.	Min.	Max.
A	-	9.50	-	0.370
B	-	6.40	-	0.250
C	1.20	1.30	0.048	0.052
D	25.4	-	1.00	-

The diagram shows a side view of a DO-201AD/DO-27 package. It features a central cylindrical body with two leads extending from the sides. Dimension A is the width of the body, B is the height of the body, C is the thickness of the body, and D is the length of the leads. Labels include 'Cathode Mark', 'YFW logo', and 'Model name'.

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