

**Fast Recovery Silicon Rectifiers**

**Reverse Voltage - 100 to 1000 V**

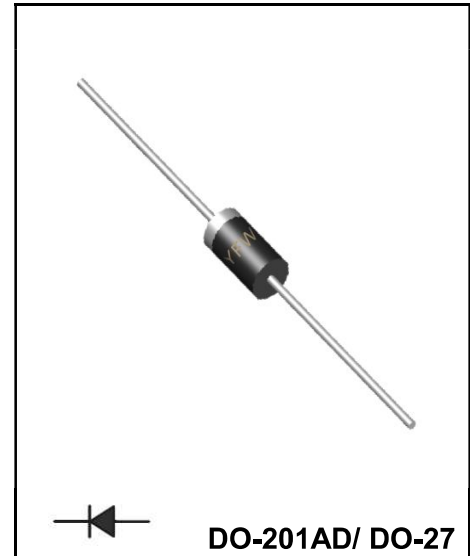
**Forward Current – 3 A**

**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: 0.98 g / 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	FR302	FR303	FR304	FR305	FR306	FR307	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	3.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	150.0						A
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.28						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						$\mu\text{A}$
Maximum reverse recovery time <sup>(Note 1)</sup>	$T_{rr}$	150		250		500		nS
Typical Junction Capacitance <sup>(Note 2)</sup>	$C_j$	60.0						pF
Typical Thermal Resistance	$R_{\theta JA}$	45.0						$^\circ\text{C/W}$
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

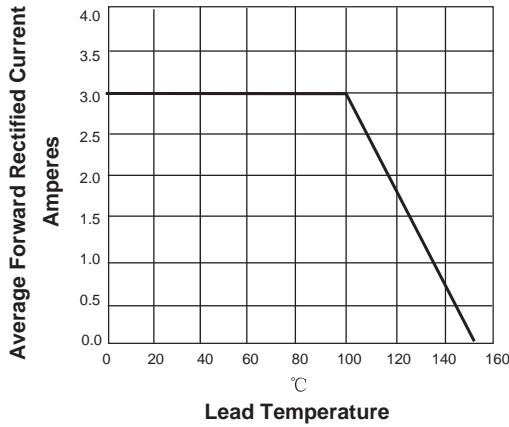


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

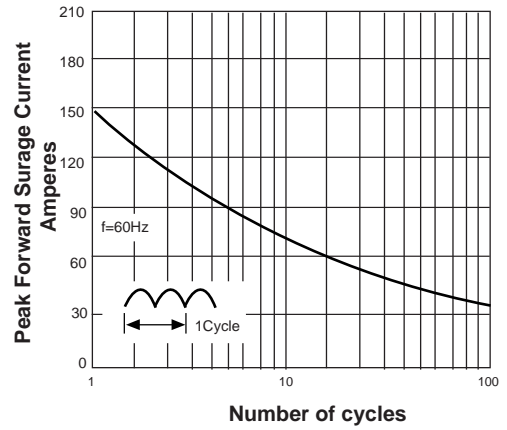


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

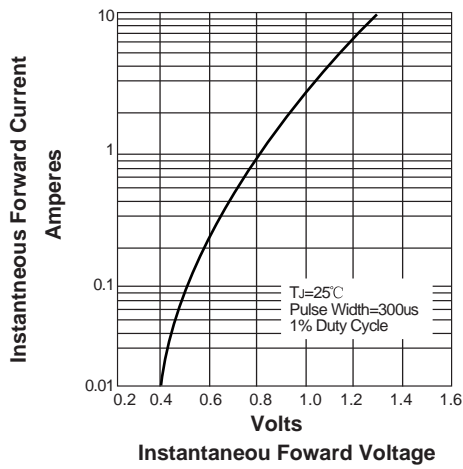
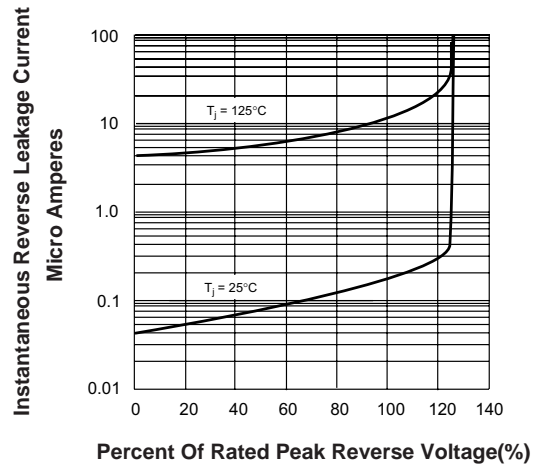


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



**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 technical drawing shows a side view of the DO-201AD/DO-27 package. Dimension A is the length of the main body. Dimension B is the height of the main body. Dimension C is the thickness of the lead. Dimension D is the length of the lead. Labels include 'Cathode Mark', 'logo', 'Model name', and 'YFW'.

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