

SUPER FAST RECTIFIERS

Reverse Voltage - 1000V

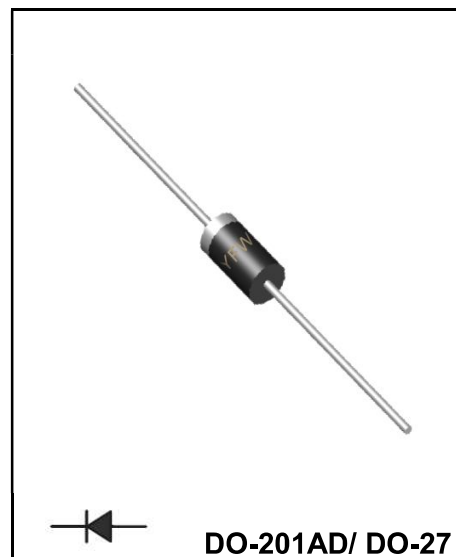
Forward Current - 5.0A

FEATURES

- ◆Low cost
- ◆Diffused junction
- ◆Low Leakage
- ◆super fast rectifiers
- ◆High current capability
- ◆Easily cleaned with Freon. Alcohol. Isopropanol and solvents
- ◆The plastic material carries U/L recognition 94V-O

MECHANICAL DATA

- ◆Case: DO-201AD/DO-27
- ◆Terminals: Axial leads. Solderable per
MIL - STD - 202 Method 208
- ◆Polarity: Color band denotes cathode
- ◆Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase. half wave. 60HZ. resistive or inductive load. For capacitive load. derate current by 20%

Parameter	SYMBOL	ER5100G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Length. $T_A = 75^{\circ}C$	$I_{(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated $T_j = 125^{\circ}C$	I_{FSM}	150	A
Maximum Forward Voltage at 5.0A DC	V_F	3.0	V
Maximum Reverse Current $T_A = 25^{\circ}C$ at Rated DC Blocking Voltage $T_A = 100^{\circ}C$	I_R	5.0 50	μA
Maximum reverse recovery time (Note 1)	t_{rr}	35	ns
Typical Junction Capacitance (Note 2)	C_j	100	pF
Typical Thermal Resistance (Note 3)	R_{QJA}	30	$^{\circ}C/W$
Operating Junction Temperature Range	T_j	-55 to 150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}C$

- NOTE:** 1. Reverse recovery condition $I_F = 0.5A$ $I_R = 1.0$ $t_{rr} = 0.25A$
2. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient.

FIG.1-TYPICAL FORWARD CHARACTERISTIC

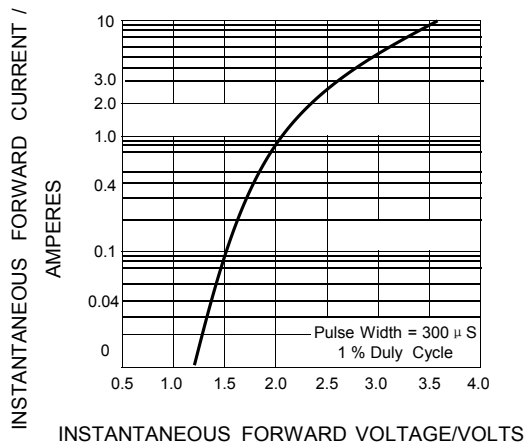


FIG. 2 -- TYPICAL JUNCTION CAPACITANCE

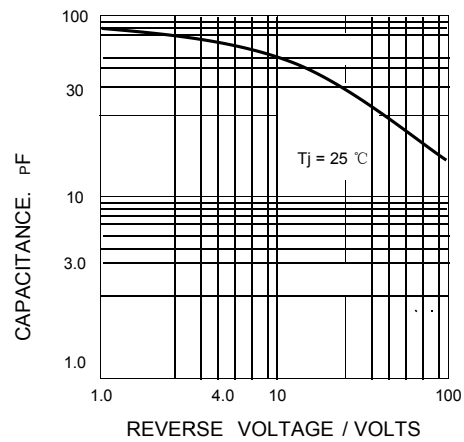


FIG.3-FORWARD CURRENT DERATING CURVE

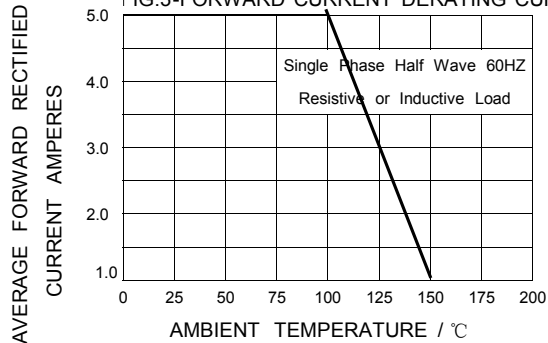


FIG.4 - PEAK FORWARD SURGE CURRENT

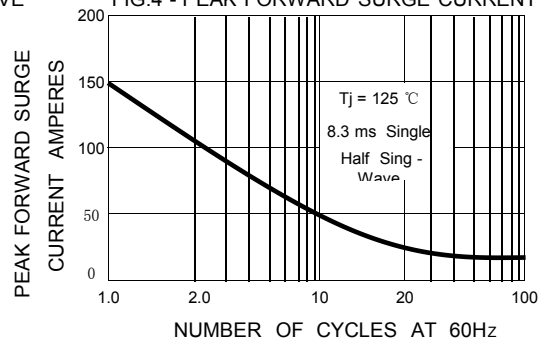
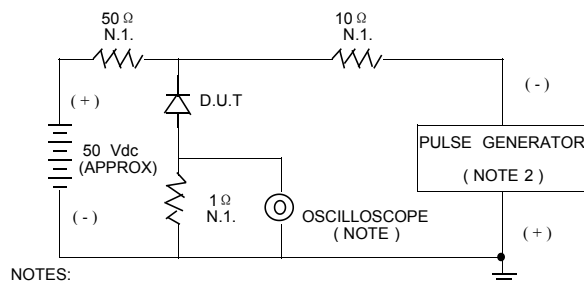
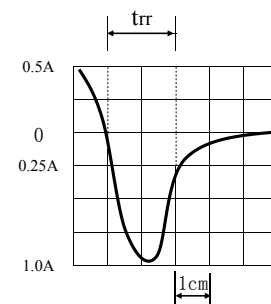


FIG. 5 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:

1. RISE TIME = 7n SEC MAX. INPUT IMPEDANCE = 1 MEGOHM
2. RISE TIME = 10n SEC MAX. SOURCE IMPEDANCE = 50 OHM



SET TIME BASE FOR 25 / 35 ns / cm

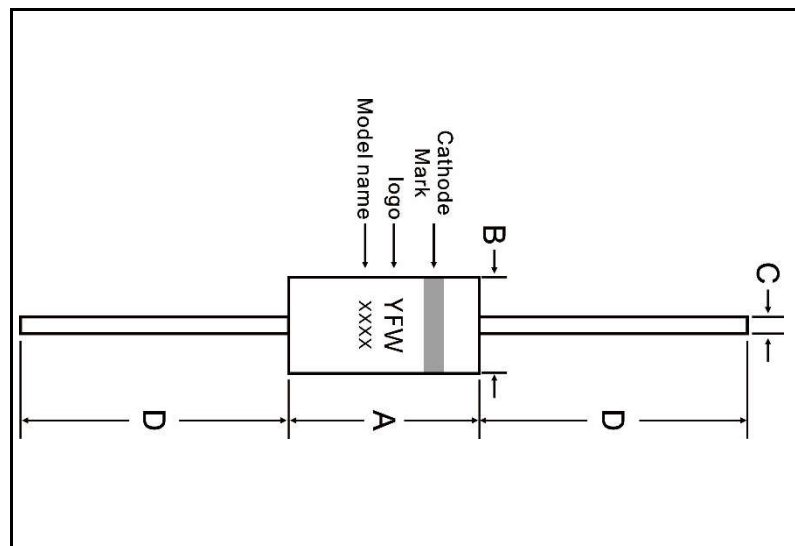
Ordering information

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	7.20	9.50	0.285	0.375
B	5.0	5.6	0.190	0.220
C	1.20	1.30	0.048	0.052
D	24.0	26.6	0.945	1.047



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