

Schottky Barrier Rectifier

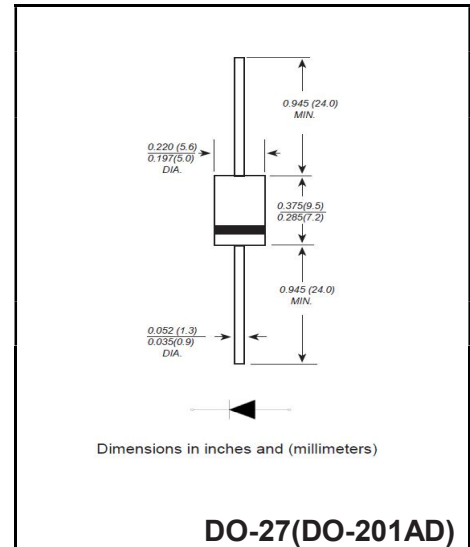
Reverse Voltage - 45V

Forward Current - 10 A



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0 Low forward voltage drop
- ◆ Metal silicon junction ,majority carrier conduction
- ◆ Guard ring for over voltage protection
- ◆ Low power loss high efficiency
- ◆ High current capability ,Low forward voltage drop High surge capability
- ◆ For use in low voltage ,high frequency inverters,free wheeling ,and polarity protection applications
- ◆ High temperature soldering:260°C MAX at 10 seconds,per JESD 22-B106 or MIL-STD-750,method 2026
- ◆ Case: JEDEC DO-27(D0-201AD) molded plastic body



Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Parameter	Symbols	YFW10L45	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	31.5	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current	Per diode $I_{F(AV)}$	10	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave superimposed on rated load per diode	I_{FSM}	125	A
Operating Temperature Range	T_J	-65 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C
Thermal resistance from junction to ambient	DO-27 $R_{\theta JC}$	25	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbols	Min	Typ	Max	Units
Maximum instantaneous forward voltage at $I_{F(AV)}$ (Note 1)	V_F	-	0.37 0.40 0.42 0.45 0.51	- - - 0.48 0.53	V
		-	0.29 0.36 0.38 0.40 0.48	- - - - -	
Maximum Reverse Current at Rated DC Blocking Voltage(Note 2)	I_R	-	70	120	uA
		-	-	40	mA

Note2: (1)Pulse test: 300 μ s pulse width, 1 % duty cycle

(2) Pulse test: Pulse width $\leq$ 40 ms

RATINGS AND CHARACTERISTIC CURVES

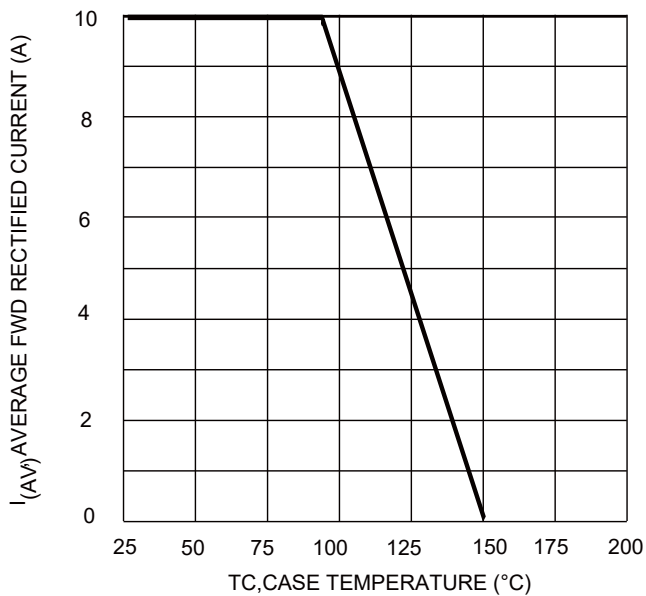


Fig. 1 Forward Derating Curve

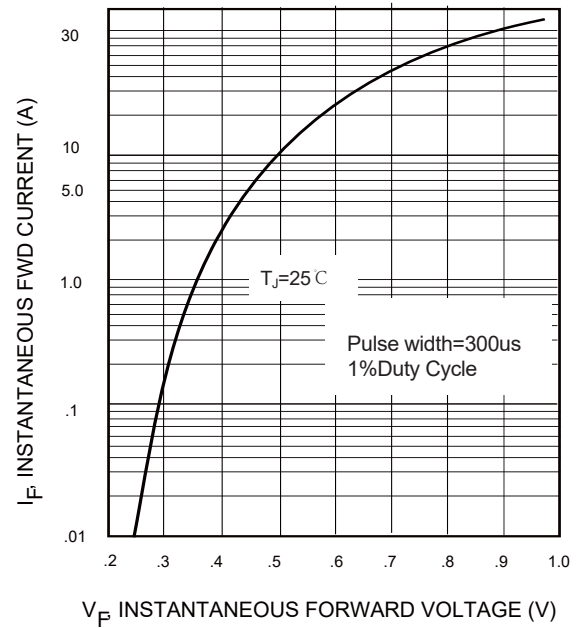


Fig. 2 Typical Forward Characteristics

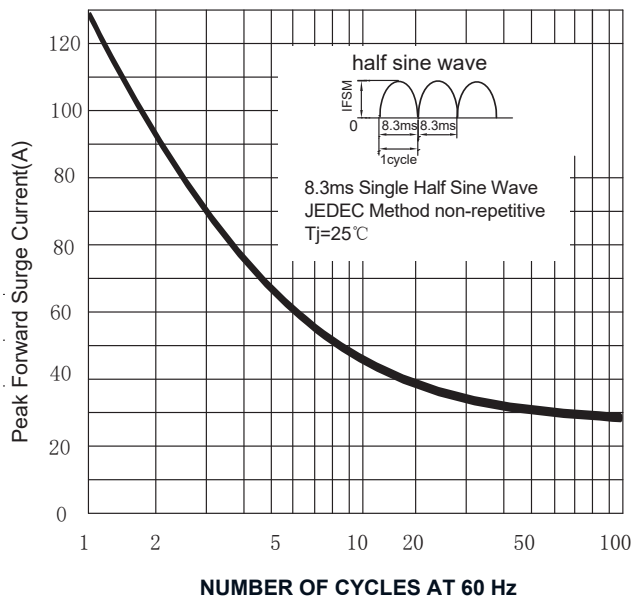


Fig. 3 Peak Forward Surge Current

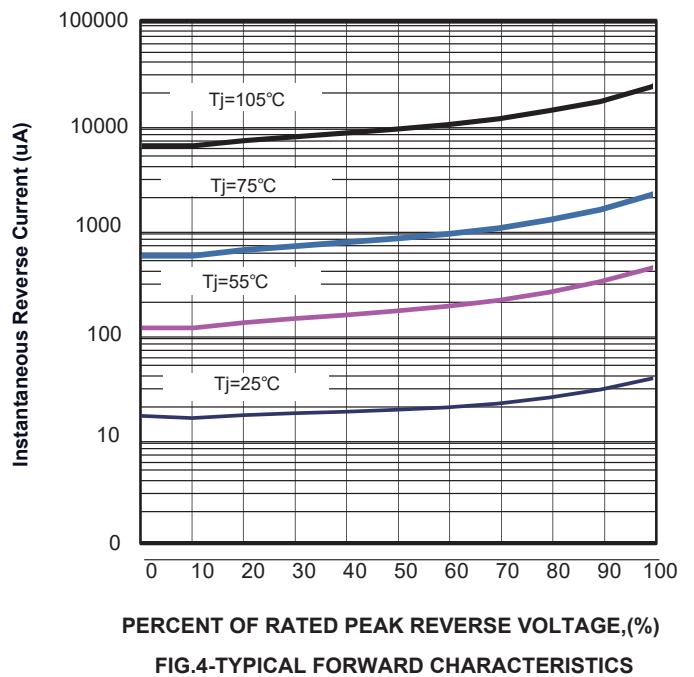
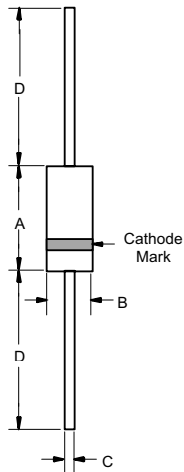


FIG.4-TYPICAL FORWARD CHARACTERISTICS

Package Outline DO-201AD(DO-27)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.370	---	9.50	
B	---	.250	---	6.40	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-201AD(DO-27)	BOX	250/1000/1250	EIA-481-1