

Trench MOS Barrier Schottky Rectifier

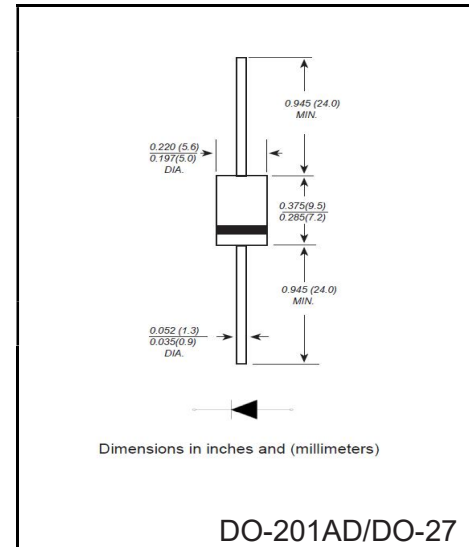
Reverse Voltage - 40 V

Forward Current - 10 A



FEATURES

- ◆ Plastic Package Has Underwriters Laboratory Flammability Classification 94V-0
- ◆ 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



MECHANICAL DATA

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

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	40	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current(See FIG.1)	$I_{F(AV)}$	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 ~ +150	°C
Storage Temperature Range	T_{STG}	-65 ~ +150	°C
Thermal resistance from junction to ambient	DO-27 $R_{\theta JC}$	25	°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value		Units
Maximum instantaneous forward voltage at I(AV)(Note 1)		V _F	Typ	Max	V
at I _F =2A Instantaneous forward voltage per diode	T _J =25°C		0.40	-	
	T _J =105°C		0.36	-	
at I _F =10A Instantaneous forward voltage per diode	T _J =25°C		0.51	0.53	
	T _J =105°C		0.48	-	
Maximum Reverse Current at Rated DC Blocking Voltage(Note 2)	T _J =25°C	I _R	70	120	uA
	T _J =105°C		-	40	mA

Note: (1)Pulse test: 300 μs pulse width, 1 % duty cycle
(2) Pulse test: Pulse width ≤ 40 ms

RATINGS AND CHARACTERISTIC CURVES

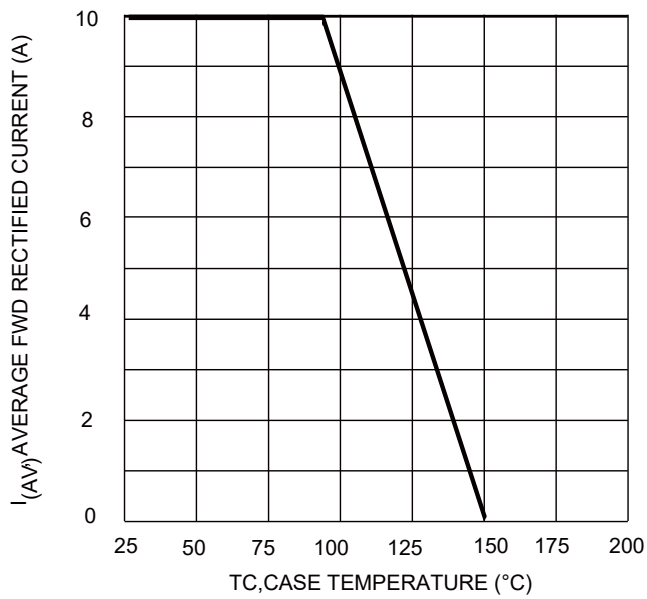


Fig. 1 Forward Derating Curve

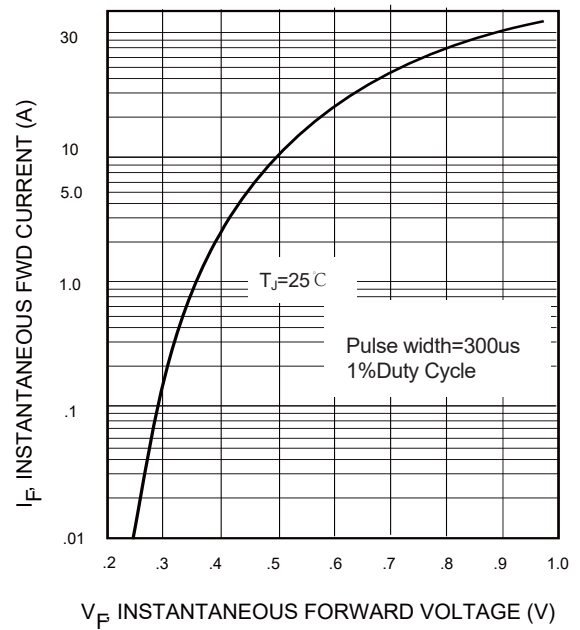


Fig. 2 Typical Forward Characteristics

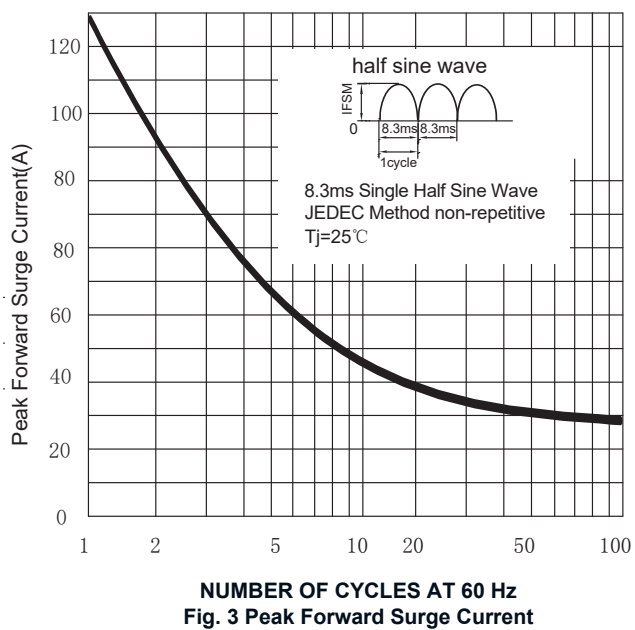


Fig. 3 Peak Forward Surge Current

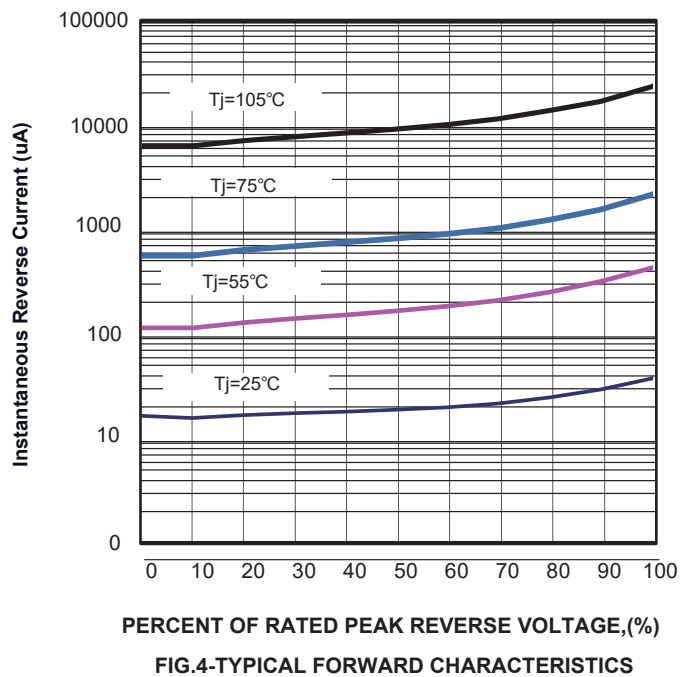
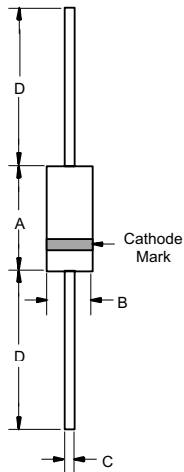


FIG.4-TYPICAL FORWARD CHARACTERISTICS

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