

Trench MOS Barrier Schottky Rectifier

Reverse Voltage - 45 V

Forward Current - 10 A

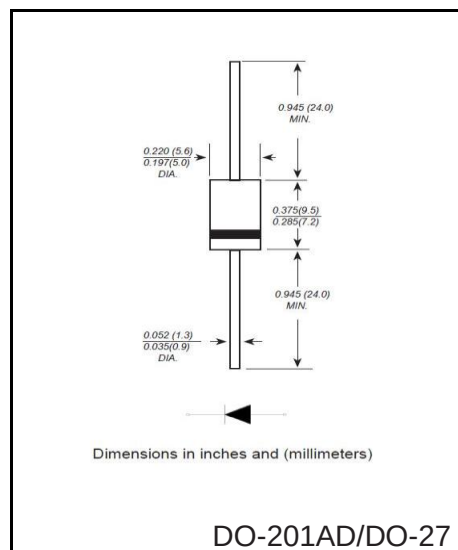


FEATURES

- ◆ Advanced trench technology
- ◆ Low forward voltage drop
- ◆ Low power losses
- ◆ High efficiency operation
- ◆ 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 (Per Leg) at Ta=25°C unless otherwise specified

Parameter		Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	45	V
Maximum RMS voltage		V_{RMS}	45	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}	150	A
Operating Temperature Range		T_J	-65 ~ +150	°C
Storage Temperature Range		T_{STG}	-65 ~ +150	°C
Typical Thermal Resistance Per diode(munted on FR-4 PCB)	DO-27	$R_{\theta JC}$	22	°C/W

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

Electrical Characteristics (Per Leg) unless otherwise specified

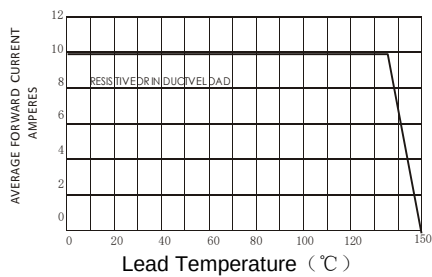
Characteristics		Symbols	Value		Units
Forward Voltage Drop(Note2)		V_F	Typ	Max	V
at $I_F=2A$ Instantaneous forward voltage per diode	TA=25°C		0.41	-	
	TA=125°C		0.23	-	
at $I_F=10A$ Instantaneous forward voltage per diode	TA=25°C		0.53	-	
	TA=125°C		0.45	-	
Instantaneous reverse current per diode at rated reverse voltage	TA=25°C	I_R	-	0.2	mA
	TA=125°C		-	15	mA

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

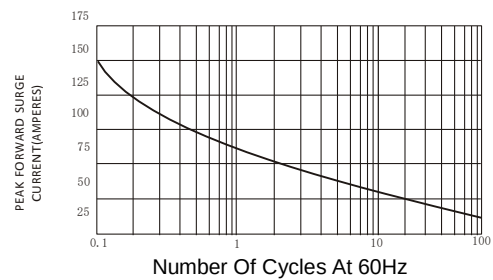
(2) Pulse test: Pulse width $\leq$ 40 ms

RATINGS AND CHARACTERISTIC CURVES

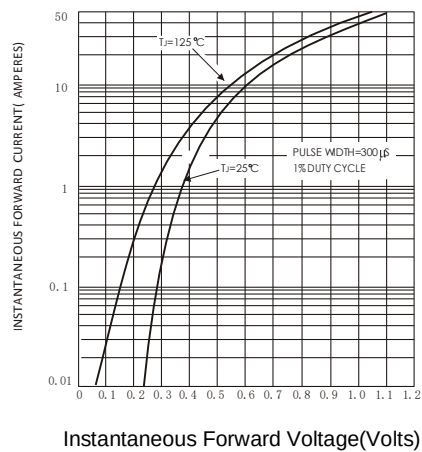
Forward Current Derating Curve



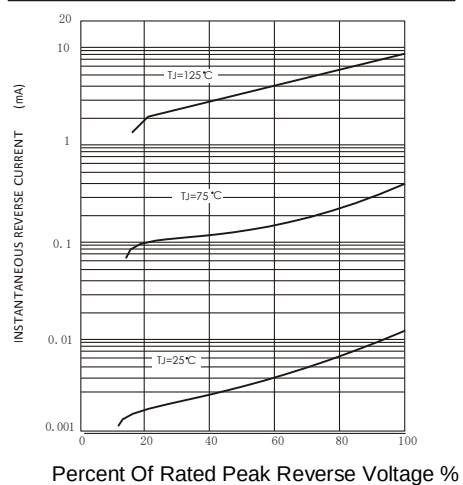
Maximum Non-repetitive Peak Forward Surge Current



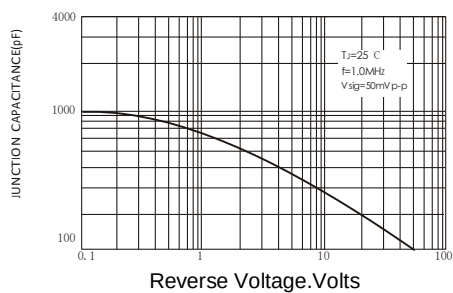
Typical Instantaneous Forward Characteristics



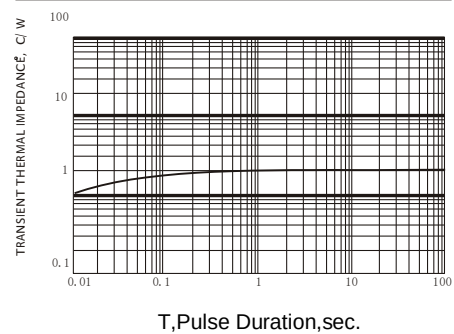
Typical Reverse Characteristics



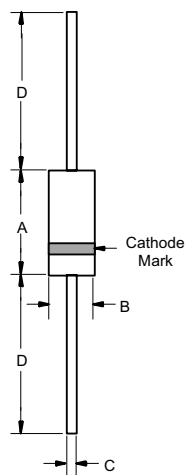
Typical Juncyion Capacitance



Typical Transient Thermal Impedance



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