

Power Schottky Rectifier - 40Amp 45Volt

Features

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- High Junction Temperature Capability
- Low forward voltage, high current capability
- High surge capacity
- Low power loss, high efficiency

Application

- Switching-Mode Power Supply

Absolute maximum ratings

Symbol	Ratings	Unit	Conditions
IF(AV)	40	A	Average Forward Current
VRRM	45	V	Repetitive Peak Reverse Voltage
IFSM	400	A	Peak Forward Surge Current
VF(max)	0.41	V	Forward Voltage Drop
Tj	-50 to +150	°C	Operating Temperature
Tstg	-65 to +150	°C	Storage Temperature

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	VF	0.52V	Tc = 25°C
		0.41V	Tc = 125°C
Maximum Reverse Leakage Current	IR	1.0mA	Tc = 25°C
Maximum Voltage Rate of Change	dv/dt	10,000 V/μs	Rated VR
Typical Thermal Resistance, Junction to Case	Rθ(j-c)	1.25 °C/W	Per diode

Note: Pulse Test : 380μs pulse width, 2% duty cycle

TO-247AD

The diagram shows a TO-247AD package with various dimensions labeled A through O. Below the drawing is a diode symbol with terminals A1, A2, and K.

DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.748	.827	19.00	21.00	
B	.787	.866	20.00	22.00	
C	.598	.638	15.20	16.20	
D	.130	.150	3.30	3.80	
E	.205	.242	5.20	6.15	
F	.209	.232	5.30	5.90	
G	.077	.091	1.95	2.30	
H	.161	.189	4.10	4.80	
I	.551	.610	14.00	15.50	
J	.045	.055	1.15	1.40	
K	.197	.219	5.00	5.55	
L	.189	.205	4.80	5.20	
M	.020	.031	0.50	0.80	
N	.083	.094	2.10	2.40	
O	.116	.128	2.95	3.25	

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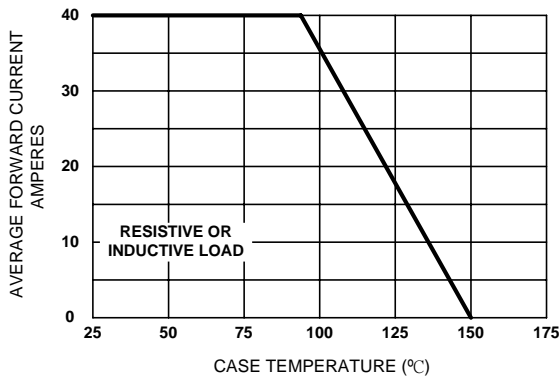


Figure 1. Forward Current Derating Curve

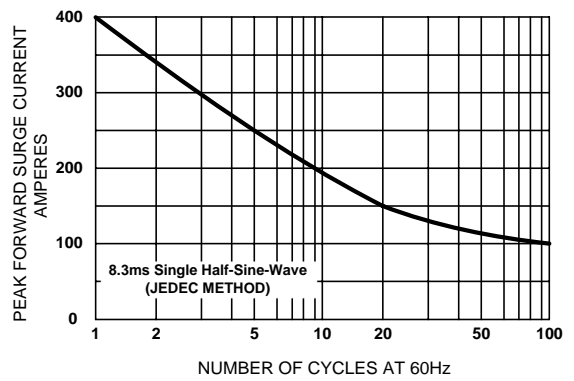


Figure 2. Maximum Non-repetitive Surge Current

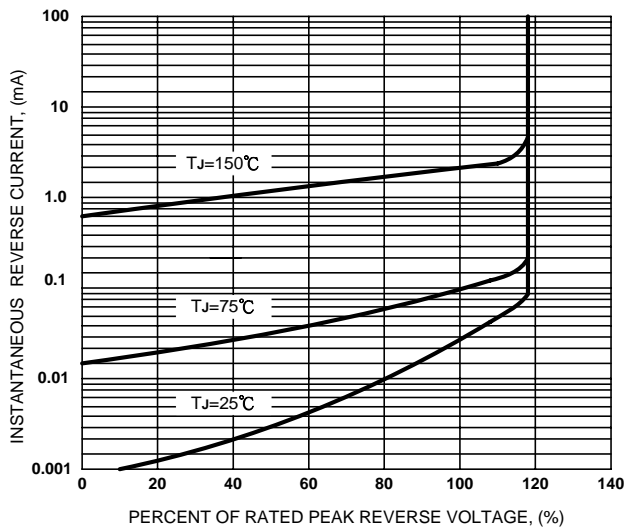


Figure 3. Typical Reverse Characteristics

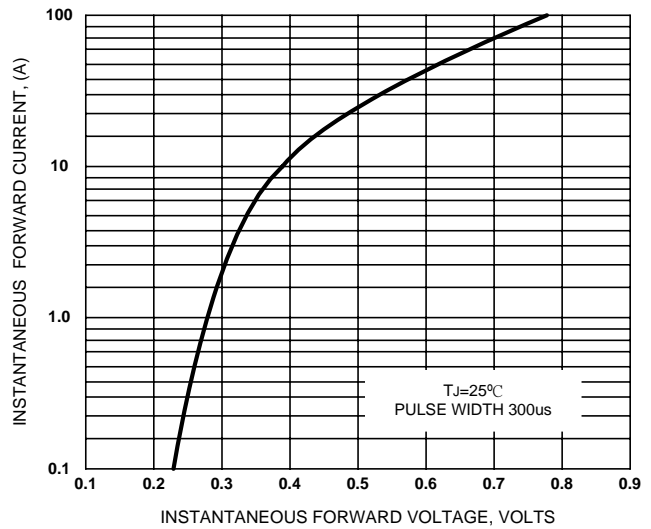


Figure 4. Typical Forward Characteristics

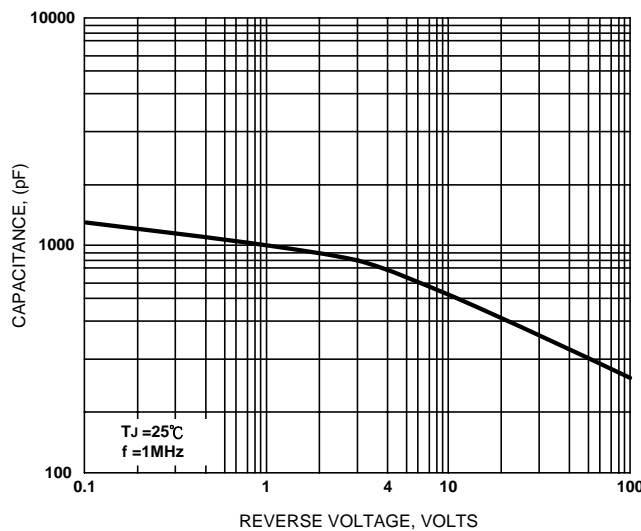


Figure 5. Typical Junction Capacitance