

Power Schottky Rectifier - 45Amp 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)	30 (R)	A	At Tc=125°C
	15 (L)	A	
VRRM	45	V	Maximum repetitive peak reverse voltage
IFSM	150	A	8.3ms single half sine-wave single shot
VF(max)	0.6	V	At IF=10A, Tc=25°C
Tj	-50 to +150	°C	
Tstg	-50 to +125	°C	

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	VF	0.6V	Tc=25°C
		0.5V	Tc=125°C
Maximum Reverse Current At Rated DC Blocking Voltage	IR	1.0mA	Tc=25°C
Voltage Rate of Change	dv/dt	10,000 V/us	Rated VR
Typical Thermal Resistance, Junction to Case	Rth (j-c)	1.25 °C/W	Per diode

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

T0-247AD

The drawing shows a top view of the T0-247AD package with dimensions A through O. Dimension A is the total height, B is the height of the main body, C is the width of the main body, D is the diameter of the mounting hole, E is the diameter of the lead hole, F is the height of the lead, G is the diameter of the lead, H is the length of the lead, I is the length of the lead, J is the diameter of the lead, K is the diameter of the lead, L is the length of the lead, M is the diameter of the lead, N is the diameter of the lead, and O is the diameter of the lead. A schematic below shows two diodes A1 and A2 connected to a common terminal K.

DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.780	.819	19.80	20.80	
B	.807	.846	20.50	21.50	
C	.606	.638	15.40	16.20	
D	.138	.150	3.50	3.80	
E	.226	.242	5.75	6.15	
F	.209	.224	5.30	5.70	
G	.077	.085	1.95	2.15	
H	.163	.175	4.15	4.45	
I	.591	.622	15.00	15.80	
J	.043	.051	1.10	1.30	
K	.197	.213	5.00	5.40	
L	.189	.205	4.80	5.20	
M	.024	.031	0.60	0.80	
N	.085	.096	2.15	2.45	
O	.079	.091	2.00	2.30	

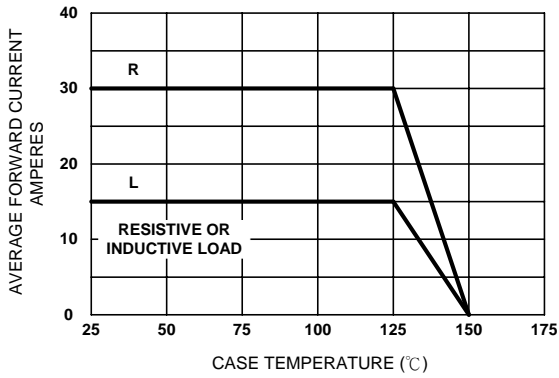


Figure 1. Forward Current Derating Curve

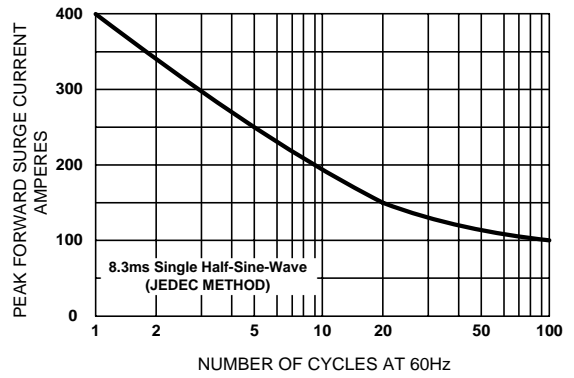


Figure 2. Maximum Non-repetitive Surge Current

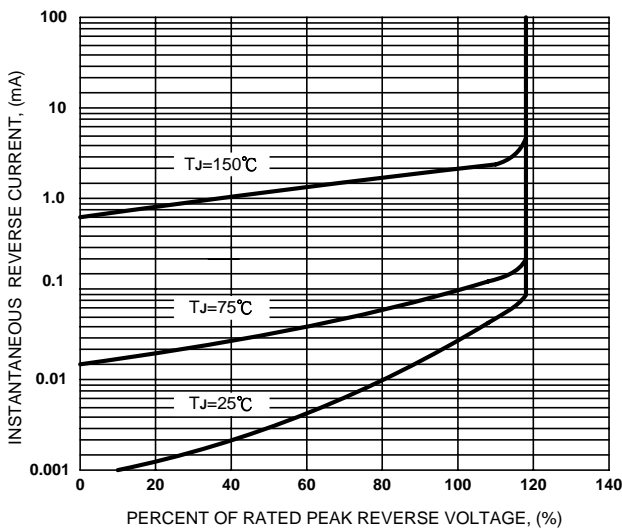


Figure 3. Typical Reverse Characteristics

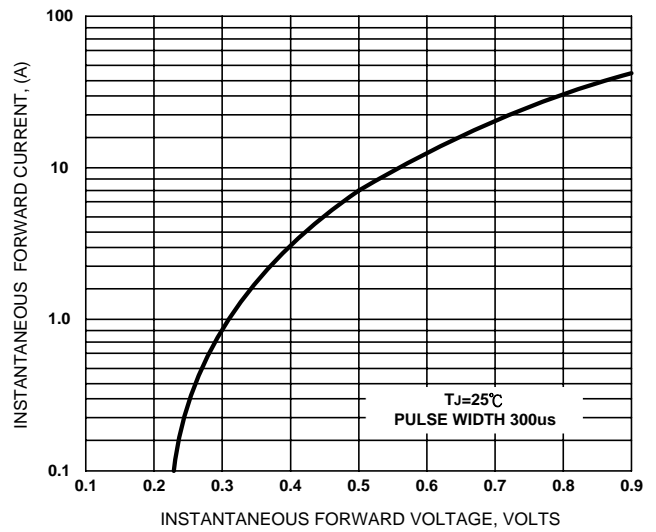


Figure 4. Typical Forward Characteristics

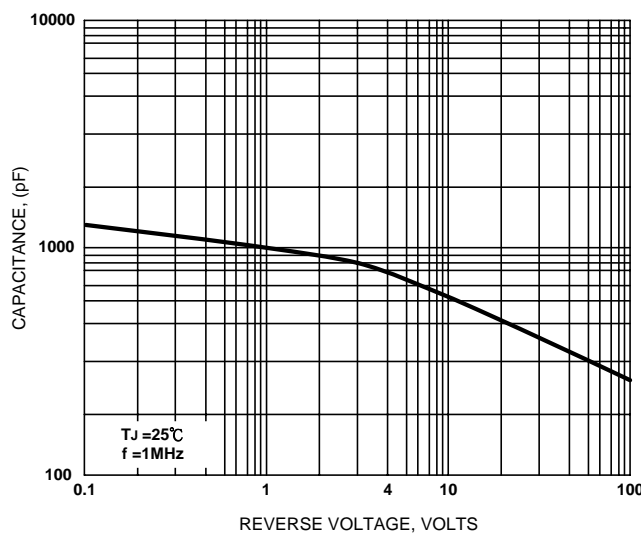


Figure 5. Typical Junction Capacitance