

## 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
- Halogen-Free

**Application**

- Switching-Mode Power Supply

**Absolute maximum ratings**

Symbol	Ratings	Unit	Conditions
I <sub>F(AV)</sub>	40	A	Average Forward Current
V <sub>RRM</sub>	45	V	Repetitive Peak Reverse Voltage
I <sub>FSM</sub>	400	A	Peak Forward Surge Current
V <sub>F(max)</sub>	0.48	V	Forward Voltage Drop
T <sub>j</sub>	-50 to +150	°C	Operating Temperature
T <sub>stg</sub>	-65 to +150	°C	Storage Temperature

**Electrical characteristics**

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.60V	T <sub>c</sub> = 25°C
Forward Voltage		0.48V	T <sub>c</sub> = 125°C
Maximum Reverse Leakage Current	I <sub>R</sub>	1.0mA	T <sub>c</sub> = 25°C
Maximum Voltage Rate of Change	dv/dt	10,000 V/μs	Rated V <sub>R</sub>
Typical Thermal Resistance, Junction to Case	R <sub>θ(j-c)</sub>	2.2 °C/W	Per diode

**T0-220AB**

The drawing shows a top view and a side view of the T0-220AB package. Dimensions A through O are labeled. A schematic below the drawing shows two diodes, A1 and A2, connected to a common terminal K.

DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.579	.606	14.70	15.40	
B	.392	.411	9.95	10.45	
C	.114	.126	2.90	3.20	
D	.248	.272	6.30	6.90	
E	.325	.350	8.25	8.90	
F	.153	.173	3.90	4.40	
G	.492	.551	12.50	14.00	
H	.102	.114	2.60	2.90	
I	.028	.039	0.70	1.00	
J	.010	.022	0.25	0.55	
K	.146	.157	3.70	4.00	
L	.167	.187	4.25	4.75	
M	.045	.057	1.15	1.45	
N	.089	.114	2.25	2.90	
O	.047	.055	1.20	1.40	

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

June 2009 / Rev.6.4

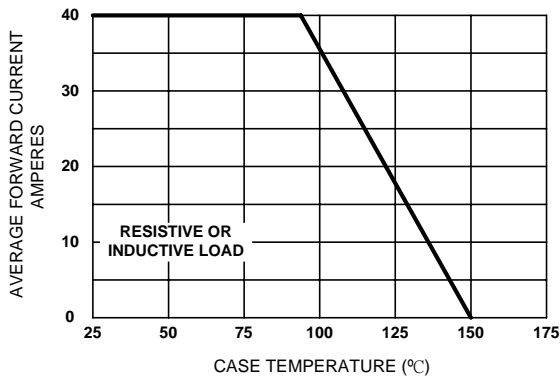


Figure 1. Forward Current Derating Curve

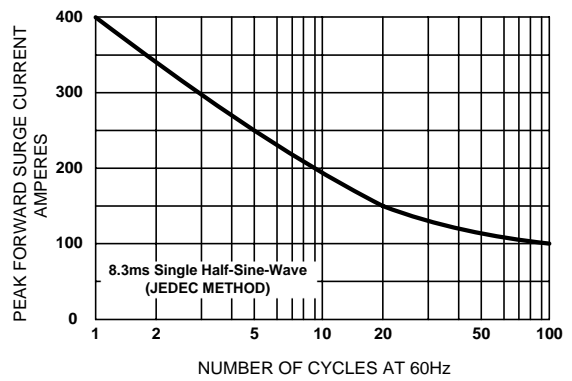


Figure 2. Maximum Non-repetitive Surge Current

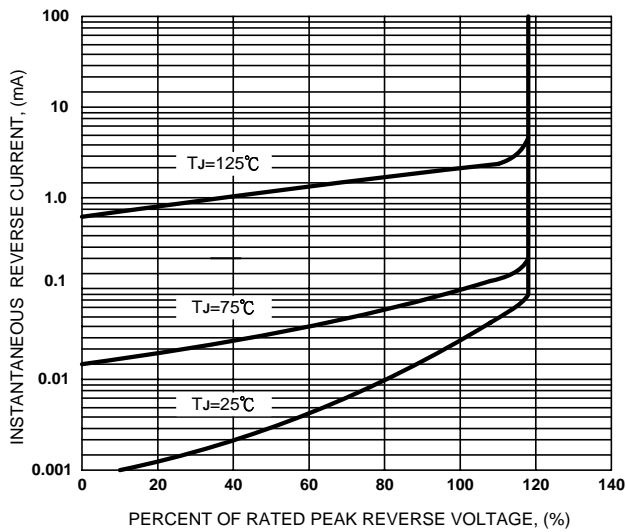


Figure 3. Typical Reverse Characteristics

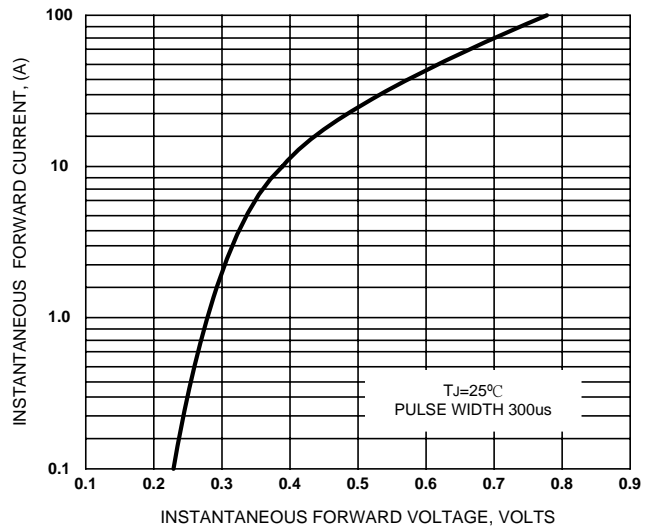


Figure 4. Typical Forward Characteristics

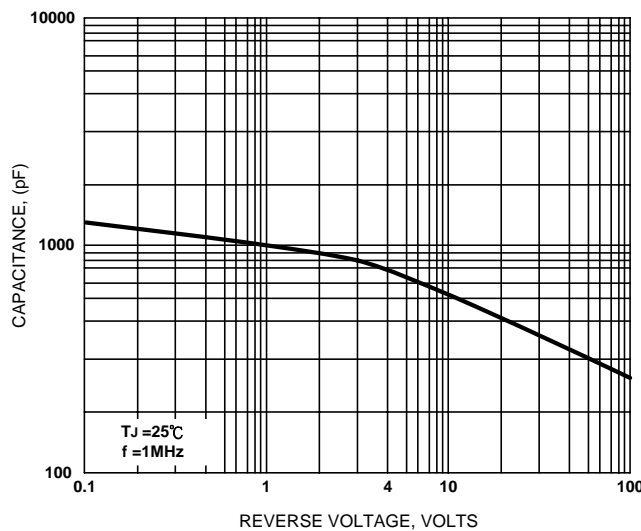


Figure 5. Typical Junction Capacitance