

**Power Schottky Rectifier - 40Amp 60Volt**

**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
- High operation junction temp up to 175°C Excellent EMI performance

**Application**

- Switching-Mode Power Supply

**Absolute maximum ratings**

Symbol	Ratings	Unit	Conditions
IF(AV)	40	A	Average Forward Current
VRRM	60	V	Repetitive Peak Reverse Voltage
IFSM	400	A	Peak Forward Surge Current
IRRM	2.0	A	Peak repetitive reverse surge current per leg at tp=2µs, 1KHz
VF(max)	0.62	V	Forward Voltage Drop
Tj	-65 to +175	°C	Operating Temperature Range
Tstg	-65 to +175	°C	Storage Temperature Range

**Electrical characteristics**

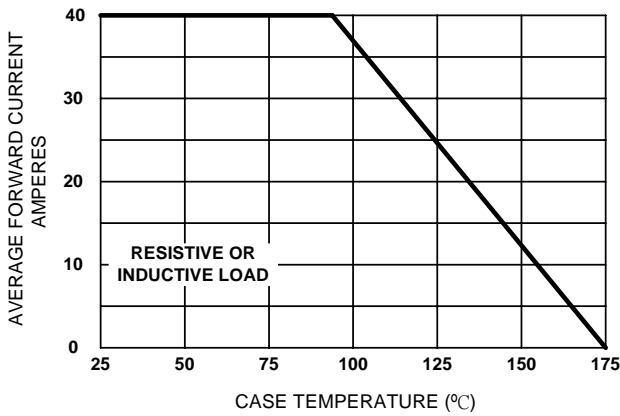
Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	VF	0.78V	Tc = 25°C
Forward Voltage		0.62V	Tc = 125°C
Maximum Reverse Leakage Current	IR	0.01mA	Tc = 25°C
		10mA	Tc = 125°C
Maximum Voltage Rate of Change	dv/dt	10,000 V/µs	Rated VR
Typical Thermal Resistance, Junction to Case	Rθ(j-c)	2.2 °C/W	Per diode

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

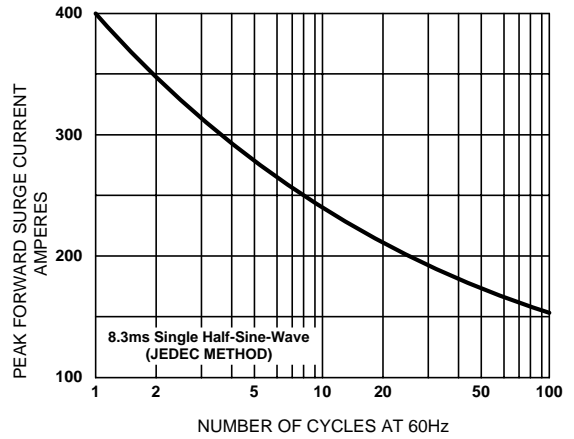
**TO-220AB**

The diagram shows a mechanical drawing of the TO-220AB package with dimensions labeled A through O. Dimension A is the total height, B is the width of the body, C is the diameter of the mounting hole, D is the height of the body, E is the height of the lead frame, F is the height of the lead frame base, G is the height of the leads, H is the width of the leads, I is the lead thickness, J is the lead pitch, K is the lead diameter, L is the lead length, M is the lead diameter at the base, N is the lead diameter at the tip, and O is the lead diameter at the base. Below the drawing is a schematic showing two diodes connected in series, with terminals A1, A2, and K.

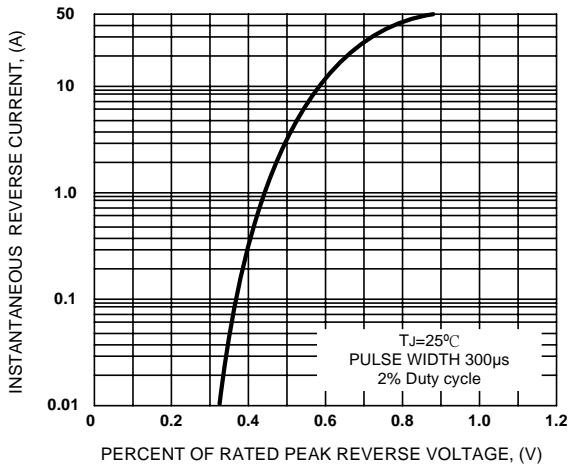
DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.579	.606	14.70	15.40	
B	.392	.411	9.95	10.45	
C	.104	.116	2.65	2.95	
D	.248	.272	6.30	6.90	
E	.325	.350	8.25	8.90	
F	.126	.157	3.20	4.00	
G	.492	.551	12.50	14.00	
H	.096	.108	2.45	2.75	
I	.028	.039	0.70	1.00	
J	.010	.022	0.25	0.55	
K	.146	.157	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	



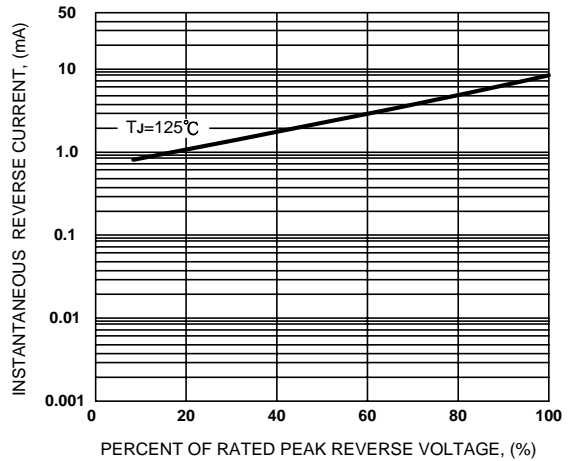
**Figure 1. Forward Current Derating Curve**



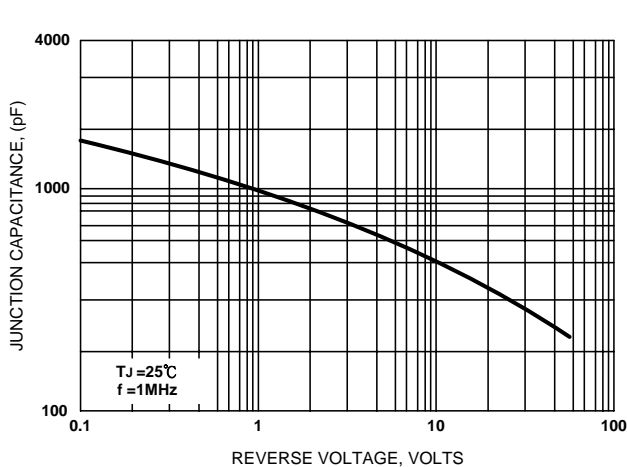
**Figure 2. Maximum Non-repetitive Surge Current**



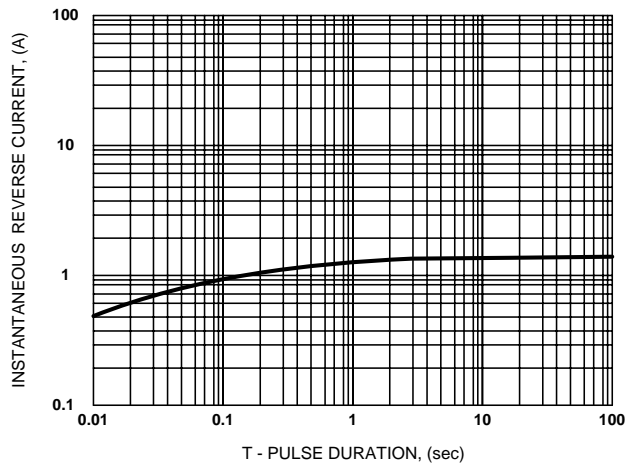
**Figure 3. Typical Instantaneous Forward Characteristics**



**Figure 4. Typical Reverse Characteristics**



**Figure 5. Typical Junction Capacitance**



**Figure 6. Typical Transient Thermal Impedance**