

## Power Schottky Rectifier - 30Amp 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**

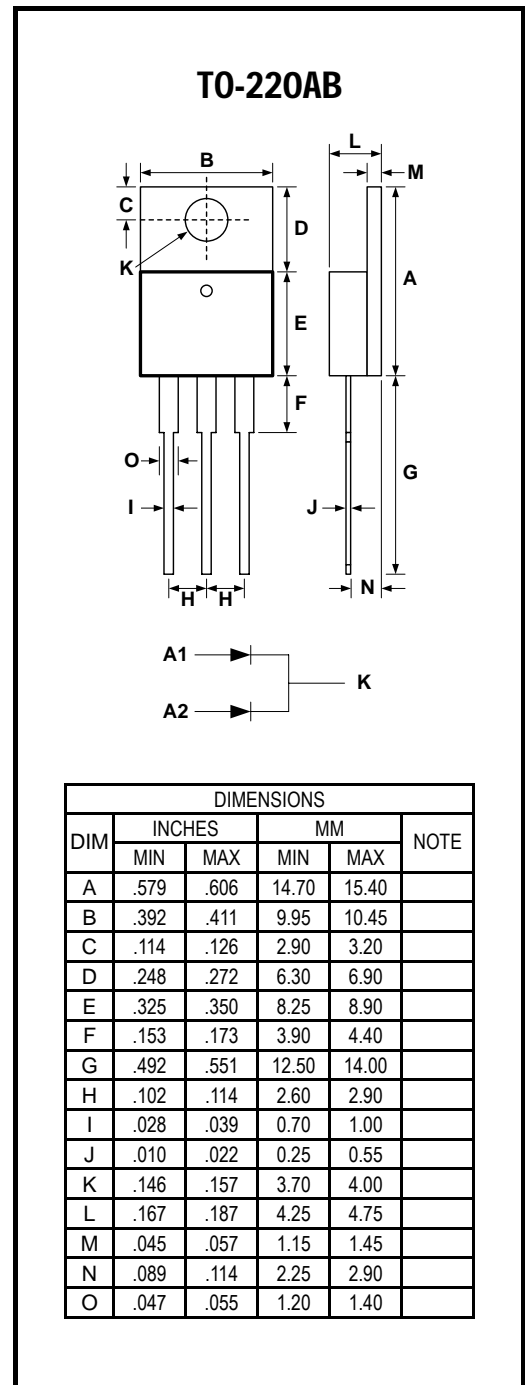
- Switching-Mode Power Supply

**Absolute maximum ratings**

Symbol	Ratings	Unit	Conditions
IF(AV)	30	A	Average Forward Current
VRRM	45	V	Repetitive Peak Reverse Voltage
IFSM	350	A	Peak Forward Surge Current
VF(max)	0.35	V	Forward Voltage Drop
Tj	-50 to +150	°C	Operating Temperature
Tstg	-50 to +150	°C	Storage Temperature

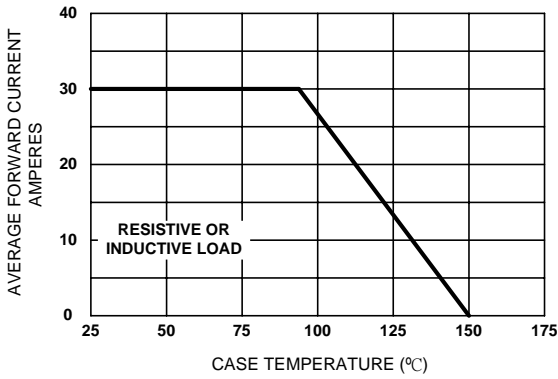
**Electrical characteristics**

Parameters	Symbol	Ratings	Conditions	
			Symbol	Conditions
Maximum Instantaneous Forward Voltage	VF	0.52V	Tc = 25°C	
		0.35V	Tc = 125°C	
Maximum Reverse Leakage Current	IR	1.0mA	Tc = 25°C	
Peak Repetitive Reverse Current	I <sub>RRM</sub>	1.0A	tp = 2µs square F = 1kHz	
Non Repetitive Peak Reverse Current	I <sub>RSM</sub>	3.0A	tp = 100µs square	
Maximum Voltage Rate of Change	dv/dt	10,000 V/µs	Rated VR	
Typical Thermal Resistance, Junction to Case	R <sub>θ(j-c)</sub>	2.2 °C/W	Per diode	

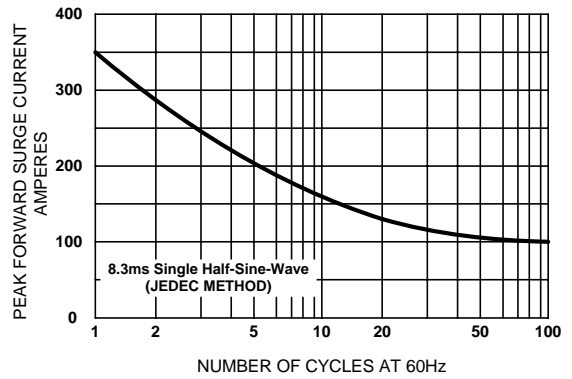


Note: Pulse Test : 380µs pulse width, 2% duty cycle

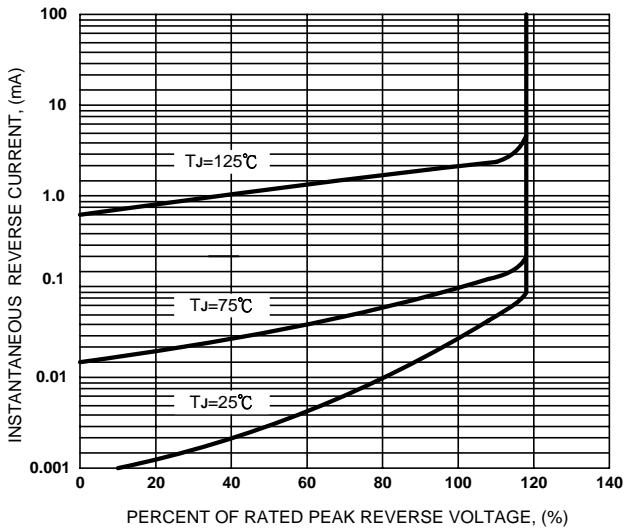
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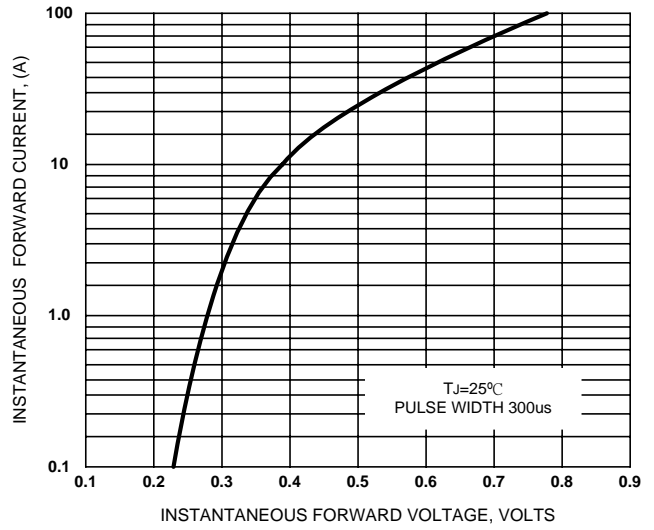
**Figure 1. Forward Current Derating Curve**



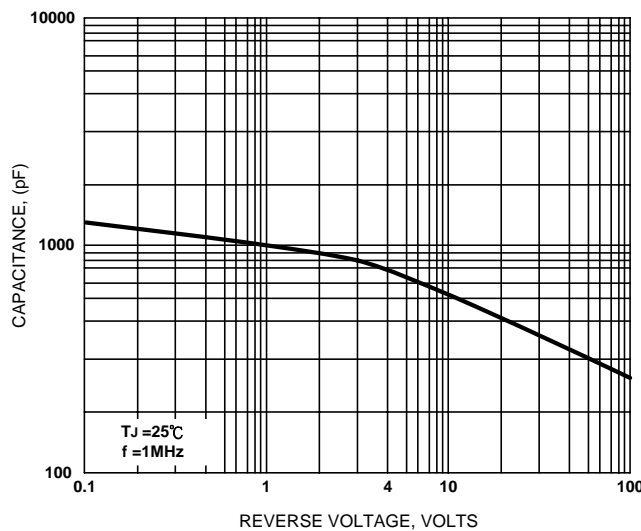
**Figure 2. Maximum Non-repetitive Surge Current**



**Figure 3. Typical Reverse Characteristics**



**Figure 4. Typical Forward Characteristics**



**Figure 5. Typical Junction Capacitance**