

# MBRH300SPT/EPT

## 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

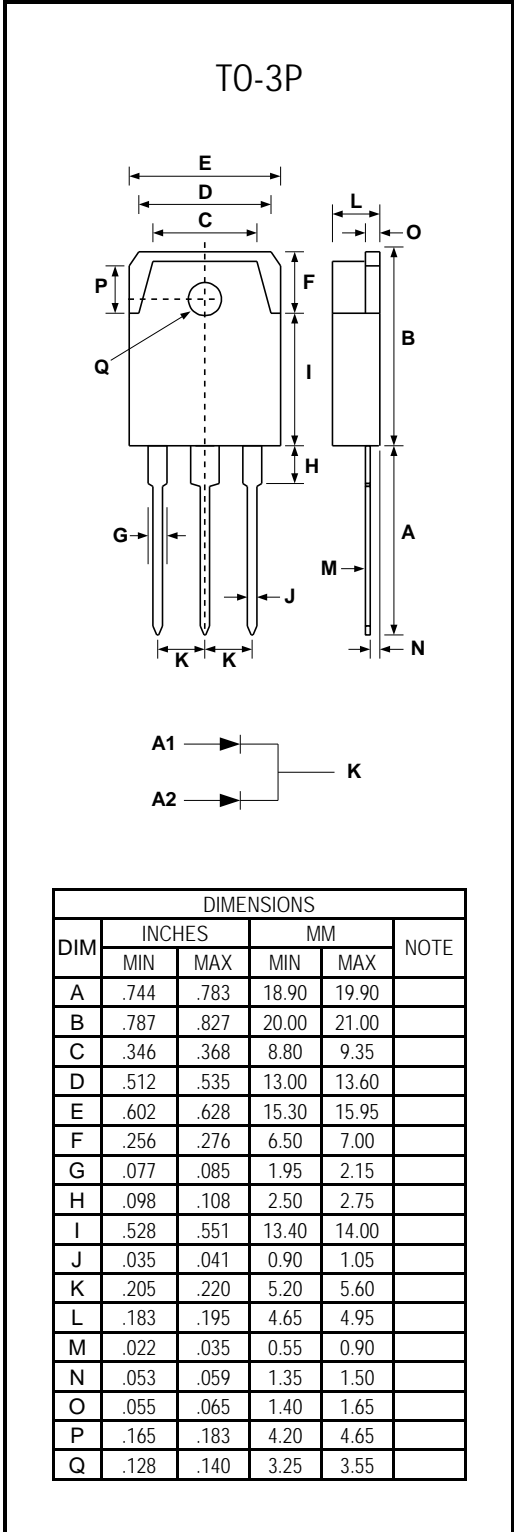
- Switching-Mode Power Supply

### Absolute maximum ratings

Symbol	Ratings	Unit	Conditions
IF(AV)	40	A	At Tc=125°C
VRRM	60	V	Maximum repetitive peak reverse voltage
IFSM	400	A	MBRH300EPT
	350	A	MBRH300SPT
IRRM	2.0	A	Peak repetitive reverse surge current per leg at tp=2µs, 1KHz
VF(max)	0.75	V	MBRH300EPT At IF=20A, Tc=25°C
	0.80	V	MBRH300SPT At IF=20A, Tc=25°C
Tj	-65 to +175	°C	Operating junction temperature range
Tstg	-65 to +175	°C	Storage temperature range

### Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	VF	0.75V	Tc=25°C
	MBRH300EPT	0.62V	Tc =125°C
		VF	0.80V
MBRH300SPT	0.68V	Tc =125°C	
Maximum Reverse Current At Rated DC Blocking Voltage	IR	0.01mA 8mA	Tc=25°C Tc=125°C
Voltage Rate of Change	dv/dt	10,000 V/µs	Rated VR
Typical Thermal Resistance, Junction to Case	Rth(j-c)	1.2 °C/W	Per diode



Note: (1)Pulse Test : 380µs pulse width, 2% duty cycle

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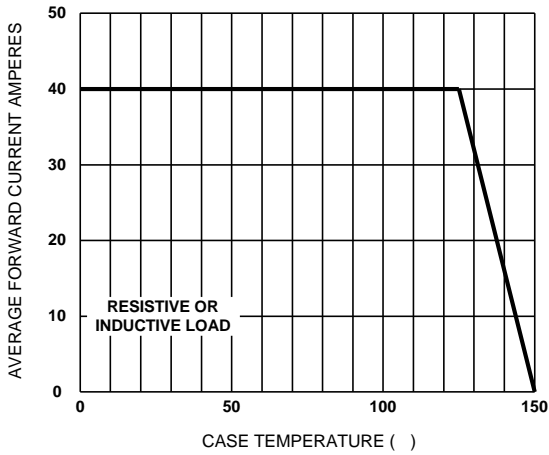


Figure 1. Forward Current Derating Curve

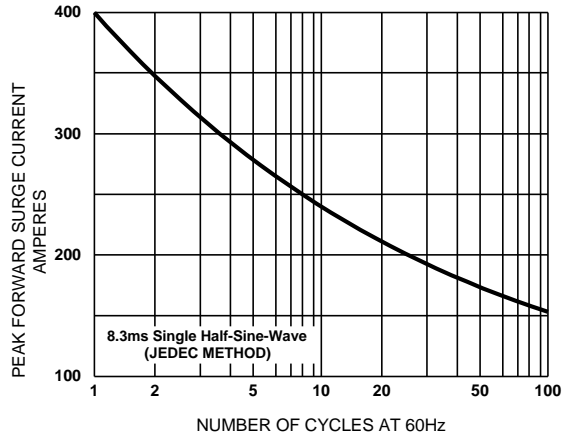


Figure 2. Maximum Non-repetitive Surge Current

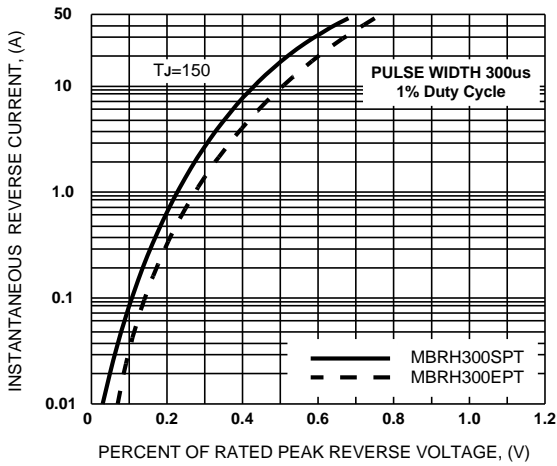


Figure 3. Typical Instantaneous Forward Characteristics

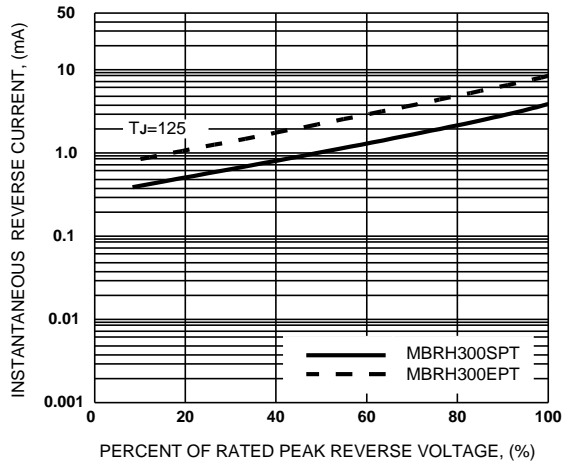


Figure 4. Typical Reverse Characteristics

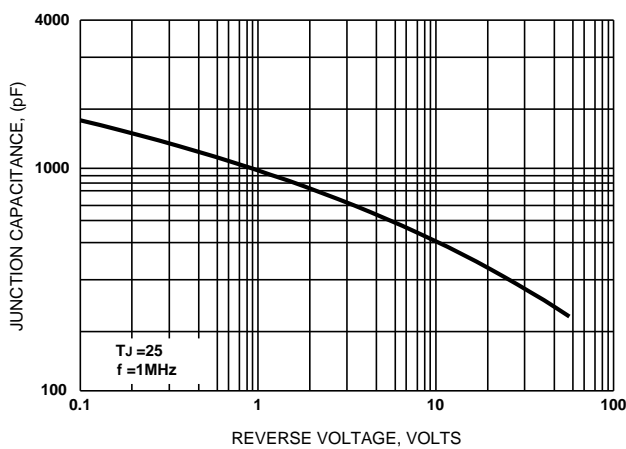


Figure 5. Typical Junction Capacitance

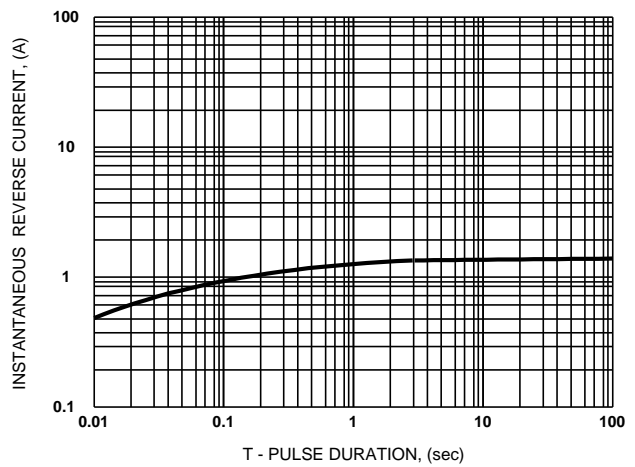


Figure 6. Typical Transient Thermal Impedance