

## Trench MOS Barrier Schottky Rectifier - 30Amp 120Volt

**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**

- AC/DC Switching Adaptor and other Switching Power Supply

**Absolute maximum ratings**

Symbol	Ratings	Unit	Conditions
IF(AV)	30	A	Average Forward Current
VRRM	120	V	Repetitive Peak Reverse Voltage
IFSM	200	A	Peak Forward Surge Current
VF	0.66	V	Forward Voltage Drop
Tj, Tstg	-65 to +150	°C	Operating and Storage Temperature

**Electrical characteristics**

Parameters	Symbol	Ratings		Conditions
		TYP.	MAX.	
Instantaneous Forward Voltage	VF			Per Leg at IF = 15A
		0.79V	0.82V	Tc = 25°C
		0.66V	0.69V	Tc = 125°C
Reverse Leakage Current	IR			Per Leg at VR = 120V
				Tc = 25°C
		15uA	200uA	Tc = 125°C
		15mA	30mA	
Typical Thermal Resistance, Junction to Case	Rθ(j-c)	2.2 °C/W		Per Leg TO-220AB
		4.5 °C/W		ITO-220AB

Note : 1.Mounted on P.C.B with copper pad size 20mm x 30mm, thickness 1.5mm

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# MBR30V120CTH/FCTH

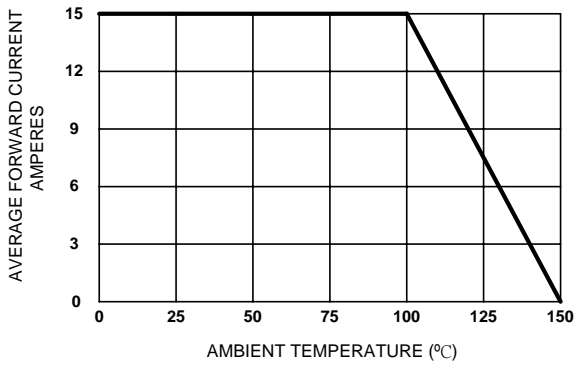


Figure 1. Forward Current Derating Curve

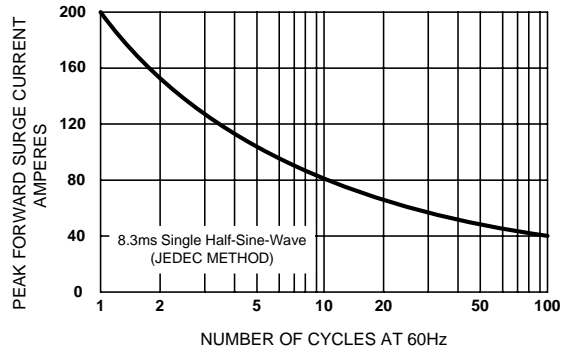


Figure 2. Maximum Non-repetitive Surge Current

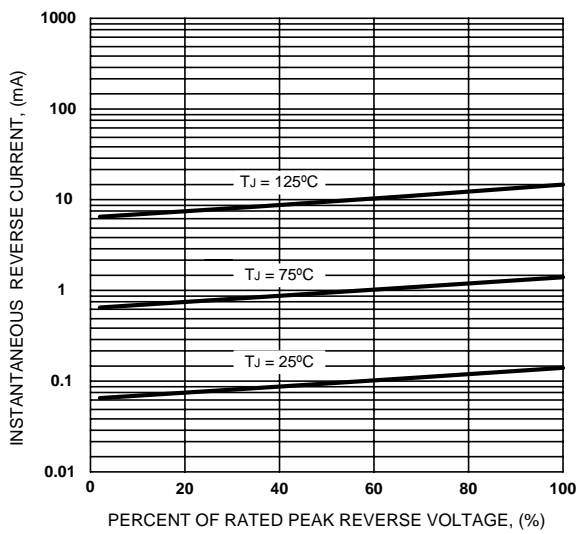


Figure 3. Typical Reverse Characteristics

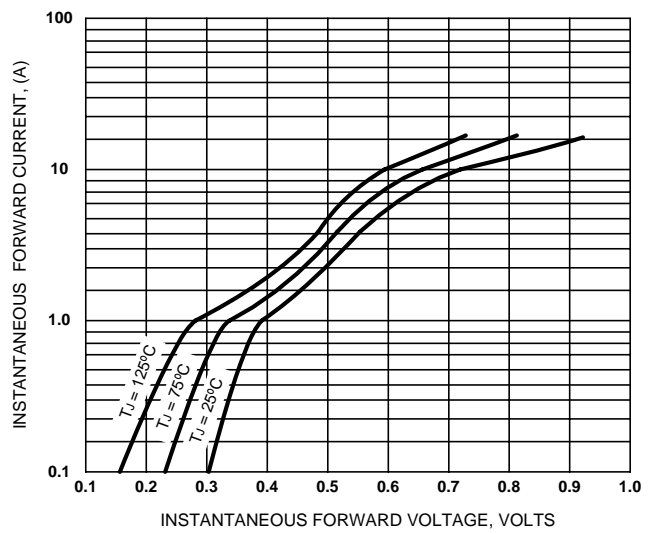


Figure 4. Typical Forward Characteristics

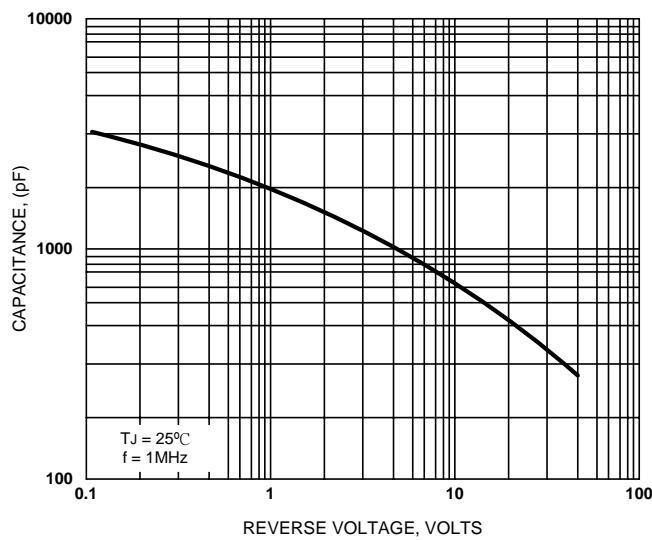
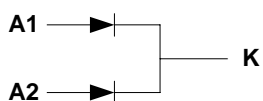
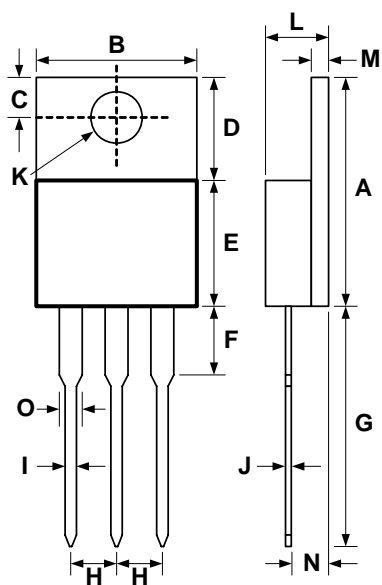


Figure 5. Typical Junction Capacitance

**MBR30V120CTH**

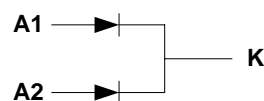
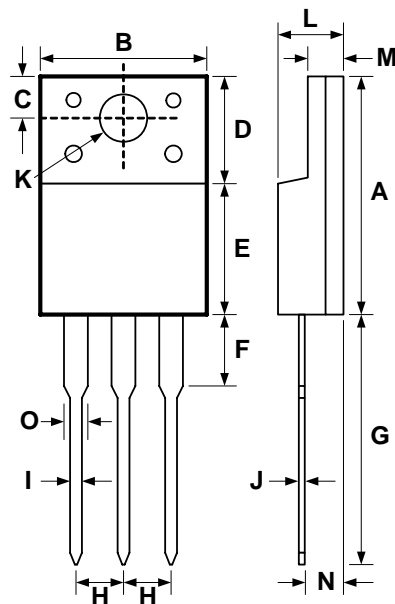
**TO-220AB**



DIM	DIMENSIONS				NOTE
	INCHES		MILLIMETERS		
	MIN	MAX	MIN	MAX	
A	.590	.630	15.0	16.00	
B	.390	.413	9.90	10.50	
C	.098	.138	2.50	3.50	
D	.228	.272	5.80	6.90	
E	.344	.384	8.75	9.75	
F	.142	.165	3.60	4.20	
G	.512	.551	13.00	14.00	
H	.093	.112	2.35	2.85	
I	.026	.037	0.65	0.95	
J	.012	.026	0.30	0.65	
K	.136	.160	3.45	4.05	
L	.169	.185	4.30	4.70	
M	.043	.059	1.10	1.50	
N	.087	.126	2.20	3.20	
O	.039	.055	1.00	1.40	

**MBR30V120FCTH**

**ITO-220AB**



DIM	DIMENSIONS				NOTE
	INCHES		MILLIMETERS		
	MIN	MAX	MIN	MAX	
A	.598	.638	15.20	16.20	
B	.386	.410	9.80	10.40	
C	.098	.138	2.50	3.50	
D	.232	.276	5.90	7.00	
E	.344	.384	8.75	9.75	
F	.118	.142	3.00	3.60	
G	.472	.532	12.00	13.50	
H	.093	.112	2.35	2.85	
I	.026	.037	0.65	0.95	
J	.012	.026	0.30	0.65	
K	.124	.148	3.15	3.75	
L	.173	.189	4.40	4.80	
M	.091	.106	2.30	2.70	
N	.094	.134	2.40	3.40	
O	.039	.055	1.00	1.40	

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