Micro Commercial Components
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MBR3020W THRU MBR30100W

30 Amp Schottky Barrier Rectifier 20 to 100 Volts

Features

- High Surge Capacity
- Low Power Loss, High Efficiency
- High Current Capability, Low V_F
- Metal of silicon Rectifier, majority Carrier Conduction
- Guard Ring For Transient Protection
- Plastic Package Has UL Flammability Classification 94V-0

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

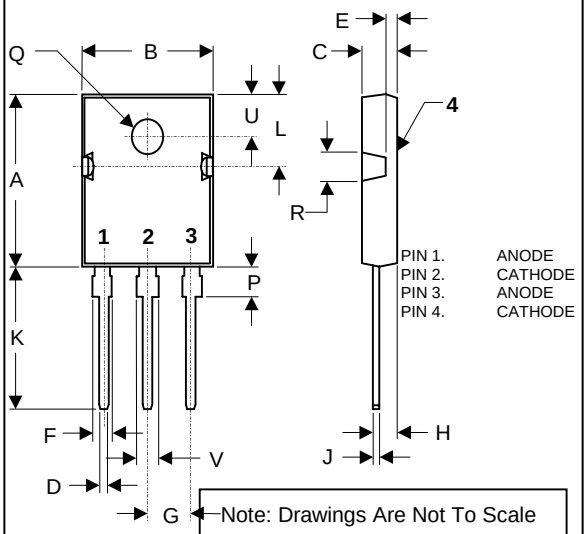
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR3020W	20V	14V	20V
MBR3030W	30V	21V	30V
MBR3035W	35V	24.5V	35V
MBR3040W	40V	28V	40V
MBR3045W	45V	31.5V	45V
MBR3060W	60V	42V	60V
MBR3080W	80V	56V	80V
MBR30100W	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	30.0A	T_C=105°C
Peak Forward Surge Current	I_{FSM}	200A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR3020W-3045W MBR3060W MBR3080W-30100W	V_F	.63V .75V .84V	I_{FM} =30.0A T_A=25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1.0mA	T_C=25°C
Typical Junction Capacitance	C_j	500pF	Measured at 1.0MHz, V_R=4.0V

Pulse test: Pulse width 300 usec, duty cycle 2%.

TO-247



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MIN	
A	.803	.823	20.40	20.90	
B	.608	.628	15.44	15.95	
C	.185	.205	4.70	5.21	
D	.043	.051	1.09	1.30	
E	.059	.064	1.50	1.63	
F	.071	.086	1.80	2.18	
G	.215	BSC	5.45	BSC	
H	.101	.130	2.56	2.87	
J	.019	.027	0.48	0.68	
K	.613	.633	15.57	16.08	
L	.286	.295	7.26	7.50	
P	.122	.133	3.10	3.38	
Q	.138	.145	3.50	3.70	
R	.130	.150	3.30	3.80	
U	.209	BSC	5.30	BSC	
V	.120	.134	3.05	3.40	

MBR3020W thru MBR30100W

FIG.1 - FORWARD CURRENT DERATING CURVE

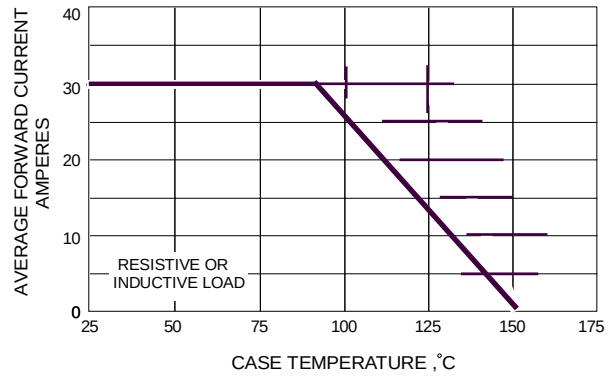


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

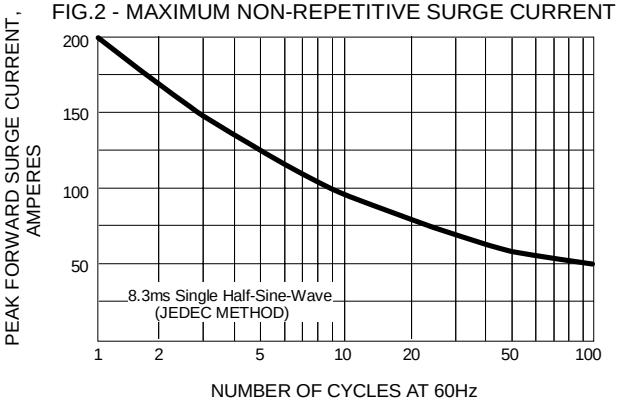


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

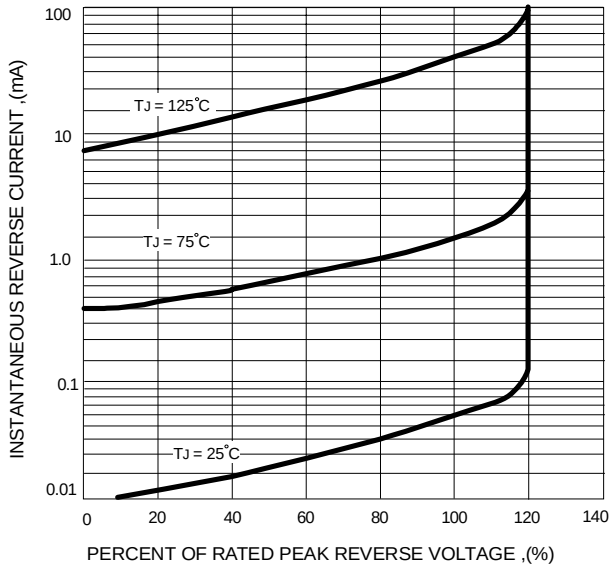


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

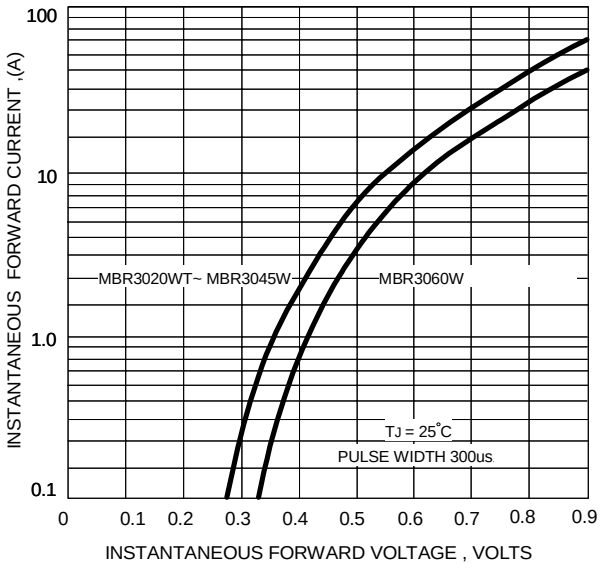


FIG.5 - TYPICAL JUNCTION CAPACITANCE

