Micro Commercial Components
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MBR4020W THRU MBR40100W

40 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
MBR4020W	20V	14V	20V
MBR4030W	30V	21V	30V
MBR4035W	35V	24.5V	35V
MBR4040W	40V	28V	40V
MBR4045W	45V	31.5V	45V
MBR4060W	60V	42V	60V
MBR4080W	80V	56V	80V
MBR40100W	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	40.0A	T_C=125°C
Peak Forward Surge Current	I_{FSM}	400A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR4020W-4045W MBR4060W MBR4080W-40100W	V_F	.63V .80V* .84V	I_{FM} =40.0A 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	700pF	Measured at 1.0MHz, V_R=4.0V

*Forward Voltage Test : I_{FM}=20.0A

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

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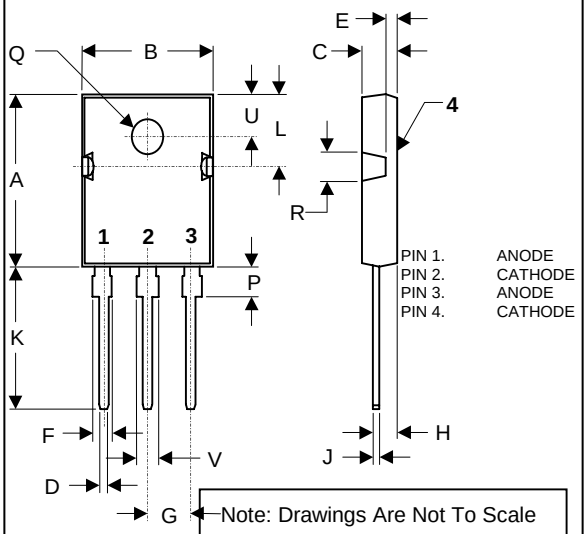


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MIN	
A	.803	.823	20.40	20.90	
B	.608	.628	15.44	15.95	
C	.185	.205	4.70	5.21	
D	.043	.051	1.09	1.30	
E	.059	.064	1.50	1.63	
F	.071	.086	1.80	2.18	
G	.215	BSC	5.45	BSC	
H	.101	.130	2.56	2.87	
J	.019	.027	0.48	0.68	
K	.613	.633	15.57	16.08	
L	.286	.295	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	

MBR4020W thru MBR40100W

FIG.1 - FORWARD CURRENT DERATING CURVE

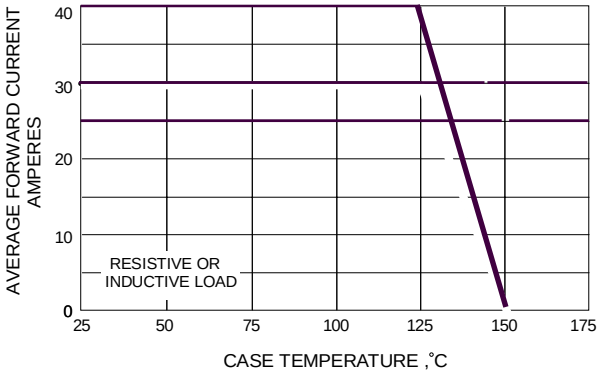


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

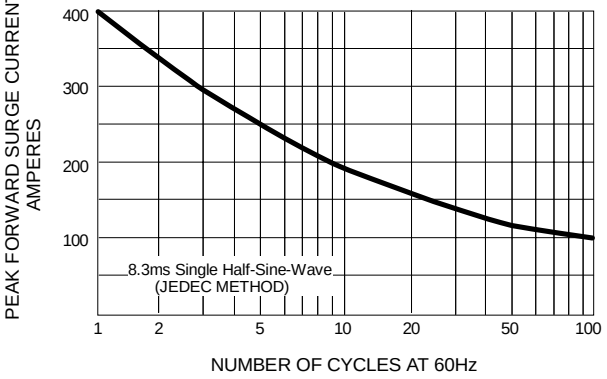


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

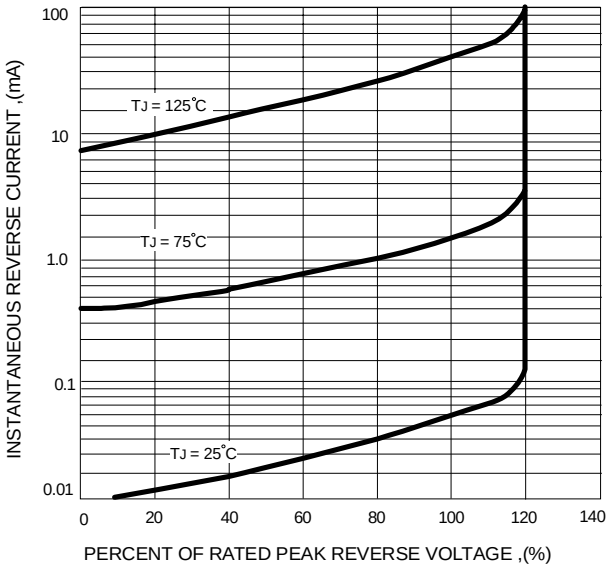


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

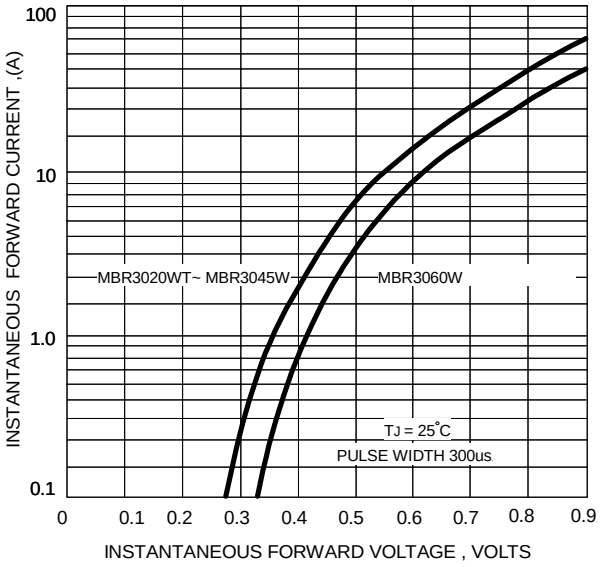
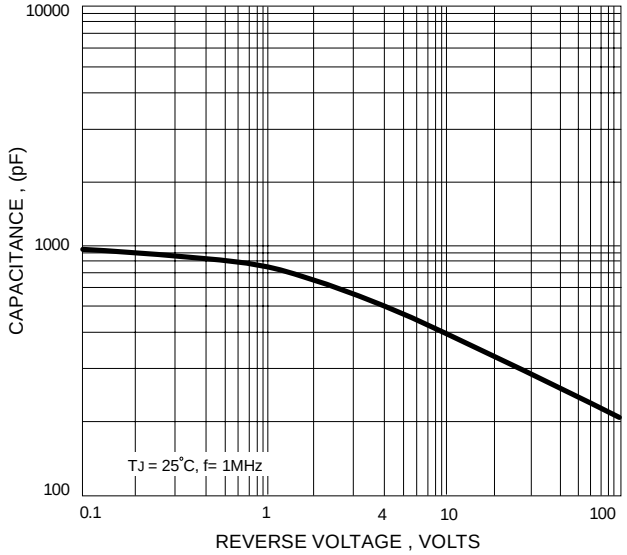


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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