Micro Commercial Components
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MBR5020WT THRU MBR50100WT

50 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

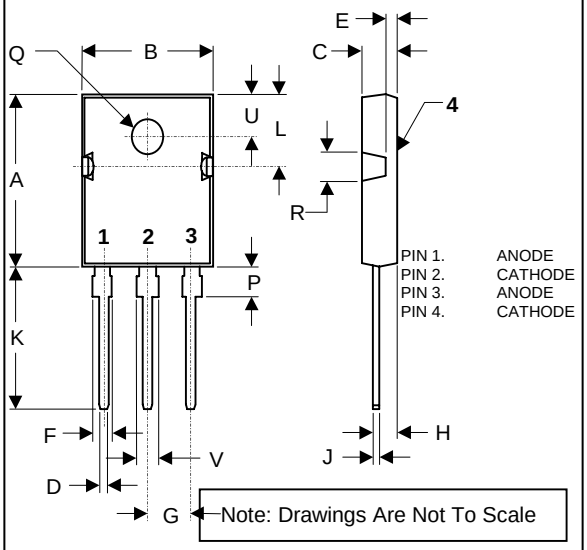
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR5020WT	20V	14V	20V
MBR5030WT	30V	21V	30V
MBR5035WT	35V	24.5V	35V
MBR5040WT	40V	28V	40V
MBR5045WT	45V	31.5V	45V
MBR5060WT	60V	42V	60V
MBR5080WT	80V	56V	80V
MBR50100WT	100V	70V	100V

Electrical Characteristics @25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50.0A	T_C=125°C
Peak Forward Surge Current	I_{FSM}	200A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR5020WT-5045WT MBR5060WT MBR5080WT-50100WT	V_F	.62V .75V .84V	I_{FM} =30.0A I_{FM} =25.0A T_A=25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.1mA	T_C=25°C
Typical Junction Capacitance	C_j	pF	Measured at 1.0MHz, V_R=4.0V

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

TO-247



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	

MBR5020WT thru MBR50100WT

Figure 1
Typical Forward Characteristics – Per Leg

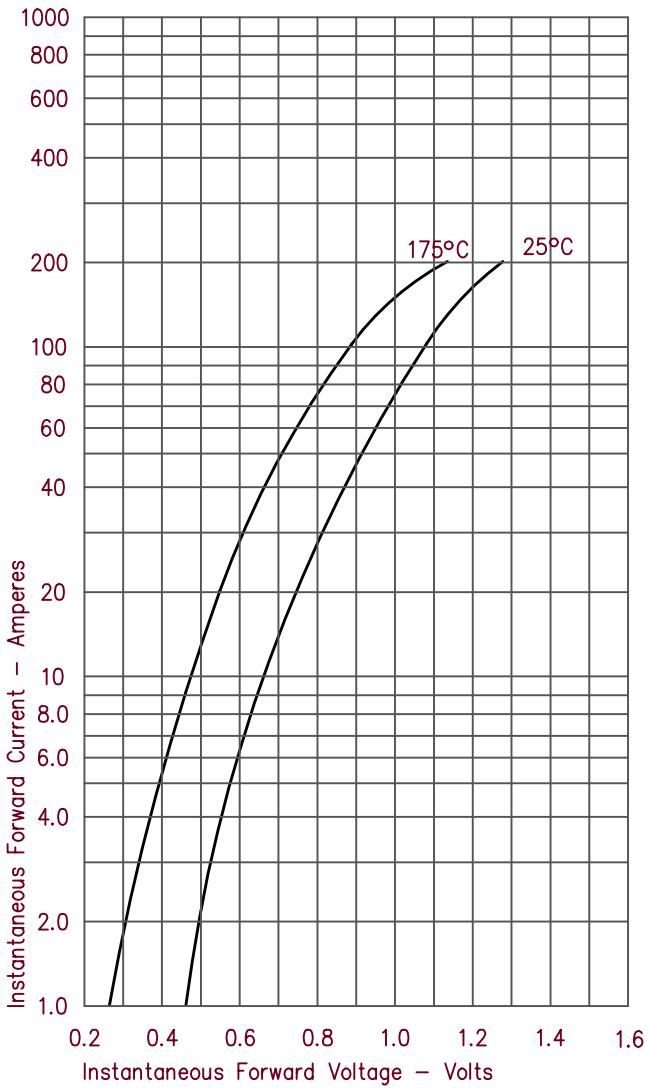


Figure 2
Typical Reverse Characteristics – Per Leg

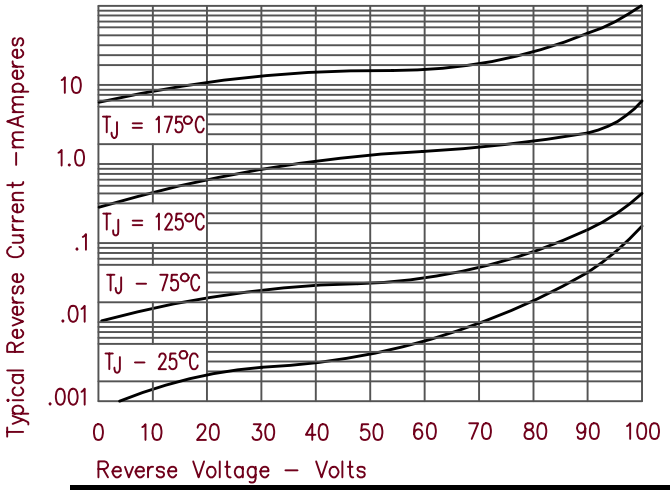


Figure 3
Typical Junction Capacitance – Per Leg

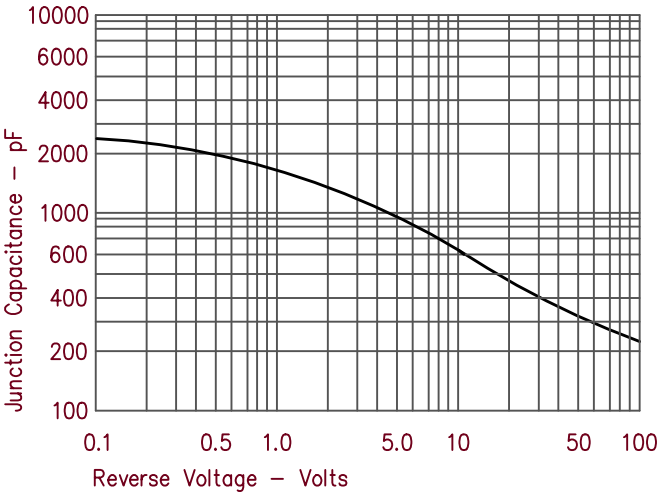


Figure 4
Forward Current Derating – Per Leg

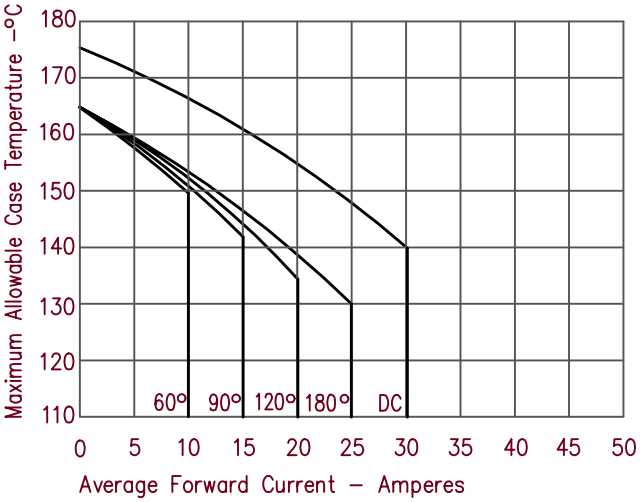


Figure 5
Maximum Forward Power Dissipation – Per Leg