MBR30020CT thru MBR30040CTR

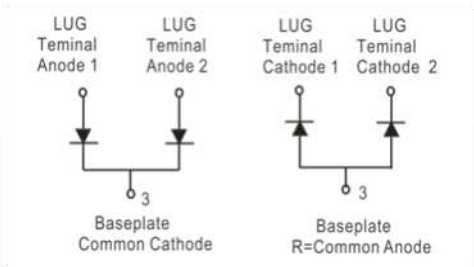
Silicon Power Schottky Diode

V_{RRM} = 20 V - 40 V

$I_{F(AV)}$ = 300 A

Features

- High Surge Capability
- Types from 20 V to 40 V V_{RRM}
- Not ESD Sensitive



Twin Tower Package



Maximum ratings, at T_j = 25 °C, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	MBR30020CT(R)	MBR30030CT(R)	MBR30035CT(R)	MBR30040CT(R)	Unit
Repetitive peak reverse voltage	V_{RRM}		20	30	35	40	V
RMS reverse voltage	V_{RMS}		14	21	25	28	V
DC blocking voltage	V_{DC}		20	30	35	40	V
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	MBR30020CT(R)	MBR30030CT(R)	MBR30035CT(R)	MBR30040CT(R)	Unit
Average forward current (per pkg)	$I_{F(AV)}$	T_C = 125 °C	300	300	300	300	A
Peak forward surge current (per leg)	I_{FSM}	t_p = 8.3 ms, half sine	2000	2000	2000	2000	A
Maximum forward voltage (per leg)	V_F	I_{FM} = 150 A, T_j = 25 °C	0.70	0.70	0.70	0.70	V
Reverse current at rated DC blocking voltage (per leg)	I_R	T_j = 25 °C	1	1	1	1	mA
		T_j = 100 °C	10	10	10	10	
		T_j = 150 °C	50	50	50	50	
Thermal characteristics							
Thermal resistance, junction-case, per leg	$R_{\Theta JC}$		0.40	0.40	0.40	0.40	°C/W

Figure .1- Typical Forward Characteristics

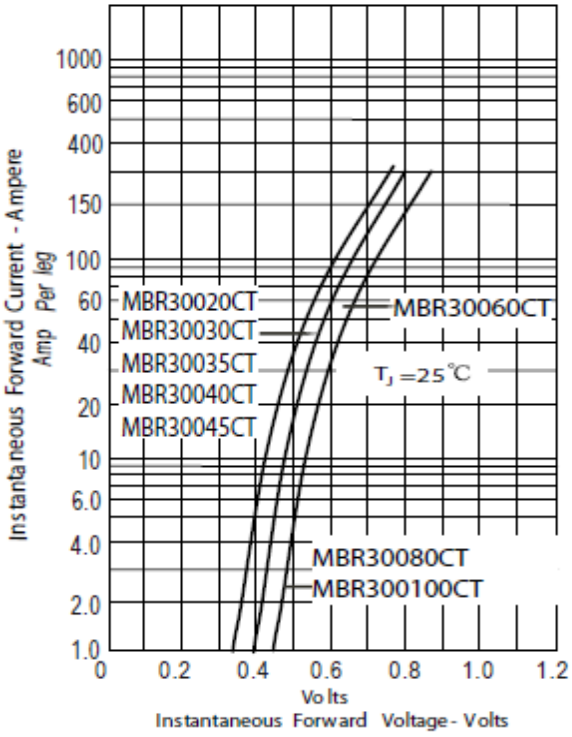


Figure .2- Forward Derating Curve

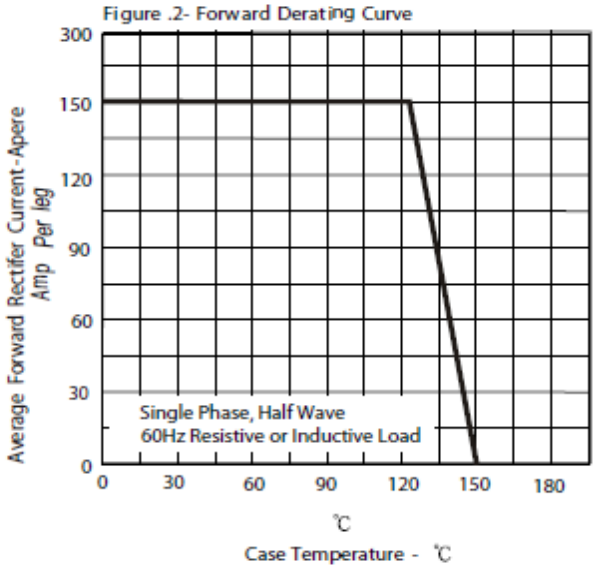


Figure .3- Peak Forward Surge Current

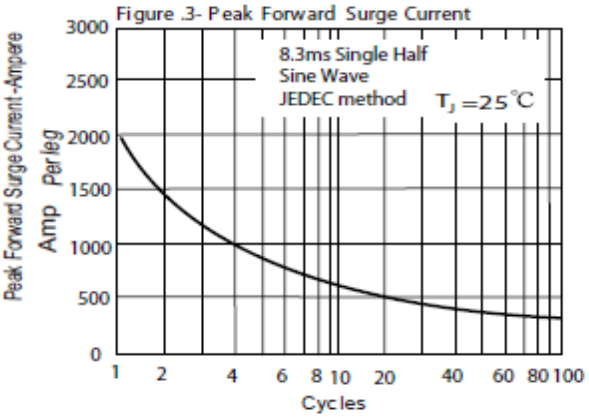
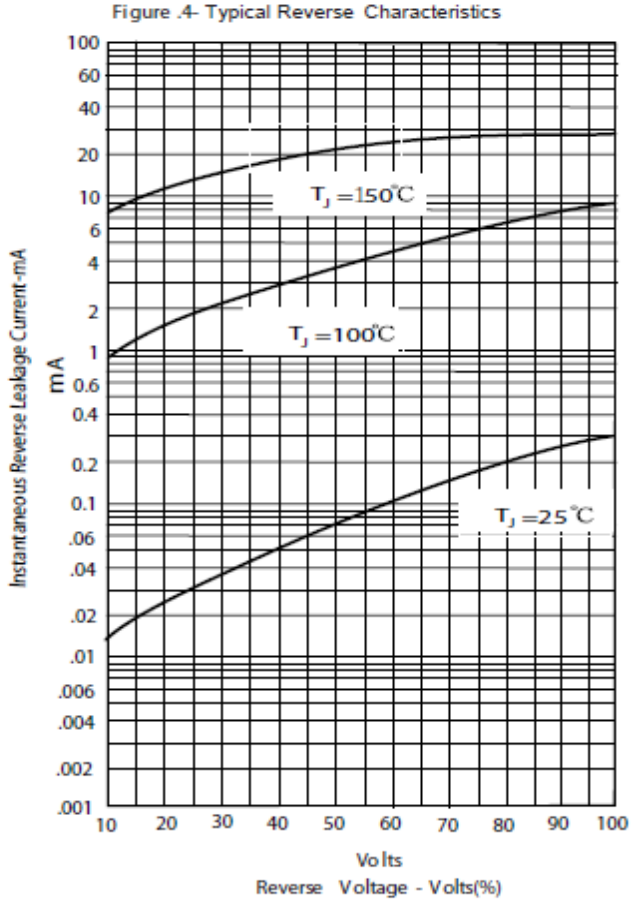
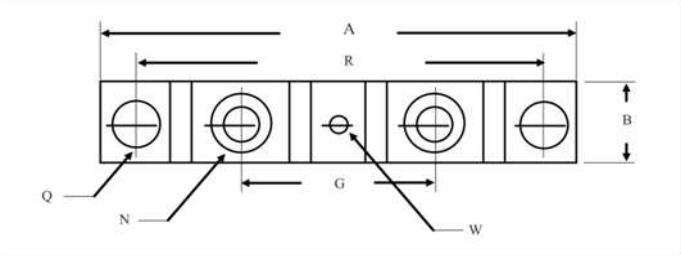


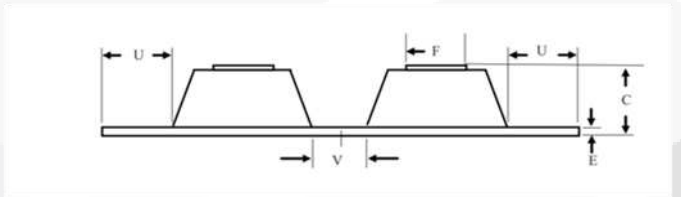
Figure .4- Typical Reverse Characteristics

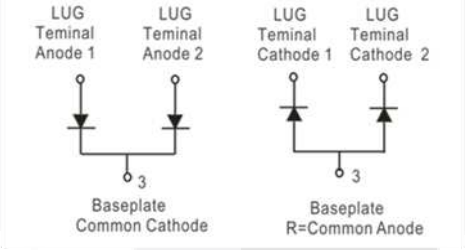


Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.







DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	-----	3.630	-----	92.40
B	0.700	0.800	17.78	20.32
C	-----	0.650	-----	16.51
E	0.130	0.141	3.30	3.60
F	0.482	0.490	12.25	12.45
G	1.368	BSC	34.75	BSC
N	1/4-20 UNC FULL			
Q	0.275	0.290	6.99	7.37
R	3.150	BSC	80.01	BSC
U	0.600	-----	15.24	-----
V	0.312	0.370	7.92	9.40
W	0.180	0.195	4.57	4.95