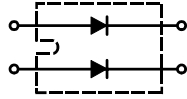
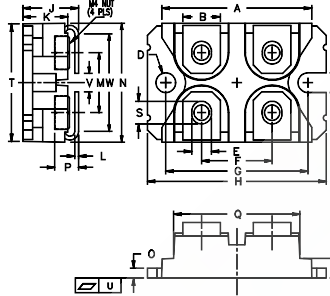


# MBR2\*100-††

<][ \ 'H'a ' @k ' FFA ' GW ch\_m6 Uff ]Yf ' 8 ]cXYg'



Dimensions SOT-227(ISOTOP)



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	31.50	31.88	1.240	1.255
B	7.80	8.20	0.307	0.323
C	4.09	4.29	0.161	0.169
D	4.09	4.29	0.161	0.169
E	4.09	4.29	0.161	0.169
F	14.91	15.11	0.587	0.595
G	30.12	30.30	1.186	1.193
H	37.80	38.20	1.489	1.505
J	11.68	12.22	0.460	0.481
K	8.92	9.60	0.351	0.378
L	0.76	0.84	0.030	0.033
M	12.60	12.85	0.496	0.506
N	25.15	25.42	0.990	1.001
O	1.98	2.13	0.078	0.084
P	4.95	5.97	0.195	0.235
Q	26.54	26.90	1.045	1.059
R	3.94	4.42	0.155	0.174
S	4.72	4.85	0.186	0.191
T	24.59	25.07	0.968	0.987
U	-0.05	0.1	-0.002	0.004
V	3.30	4.57	0.130	0.180
W	0.780	0.830	0.031	0.033

	V <sub>RSM</sub>	V <sub>RSM</sub>
	V	V
MBR2*100-080	80	80
MBR2*100-100	100	100
MBR2*100-150	150	150
MBR2*100-200	200	200

Symbol	Test Conditions	Maximum Ratings	Unit
I <sub>FRMS</sub>		150	
I <sub>FAVM</sub>	T <sub>C</sub> =1F0°C; rectangular, d=0.5	1€0	A
I <sub>FAVM</sub>	T <sub>C</sub> =1F0°C; rectangular, d=0.5; per device	2€0	
I <sub>FSM</sub>	T <sub>VJ</sub> =45°C; t <sub>p</sub> =10ms (50Hz), sine	1  00	A
E <sub>AS</sub>	I <sub>AS</sub> =28A; L=180uH; T <sub>VJ</sub> =25°C; non-repetitive	1GG	mJ
I <sub>AR</sub>	V <sub>A</sub> =1.5•V <sub>RSM</sub> typ.; f=10kHz; repetitive	2.8	A
(dv/dt) <sub>cr</sub>		1000	V/us
T <sub>VJ</sub>		-40...+150	
T <sub>VJM</sub>		150	°C
T <sub>stg</sub>		-40...+150	
P <sub>tot</sub>	T <sub>C</sub> =25°C	310	W
V <sub>ISOL</sub>	50/60Hz, RMS; I <sub>ISOL</sub> ≤1mA	2500	V~
M <sub>d</sub>	mounting torque (M4); terminal connection torque (M4)	1.1-1.5/9-13	Nm/lb.in.
Weight	typical	30	g

Symbol	Test Conditions	Characteristic Values				Unit
		typ.		max.		
I <sub>R</sub>	T <sub>VJ</sub> =25°C; V <sub>R</sub> =V <sub>RSM</sub> T <sub>VJ</sub> =125°C; V <sub>R</sub> =V <sub>RSM</sub>			4	10	mA
V <sub>F</sub>	I <sub>F</sub> =100A; T <sub>VJ</sub> =125°C I <sub>F</sub> =100A; T <sub>VJ</sub> =25°C I <sub>F</sub> =200A; T <sub>VJ</sub> =125°C	80V	100V	150V	200V	V
		0.72	0.75	0.77	0.85	
		0.84	0.88	0.91	0.95	
		0.94	0.95	0.99	1.10	
R <sub>thJC</sub> R <sub>thCH</sub>		0.1		0.4		K/W

## FEATURES

- \* International standard package SOT-227
- \* Isolation voltage 2500 V~
- \* 2 independent Schottky diodes in 1 package
- \* Very low V<sub>F</sub>
- \* Extremely low switching losses
- \* Low I<sub>RM</sub>-values
- \* RoHS compliant

## APPLICATIONS

- \* Rectifiers in switch mode power supplies (SMPS)
- \* Free wheeling diode in low voltage converters

## ADVANTAGES

- \* High reliability circuit operation
- \* Low voltage peaks for reduced protection circuits
- \* Low noise switching
- \* Low losses



# MBR2110-1

<][ \ 'H'a ' @k ' FFA ' GW ch\_m6 Uff ]Yf '8 ]cXYg'

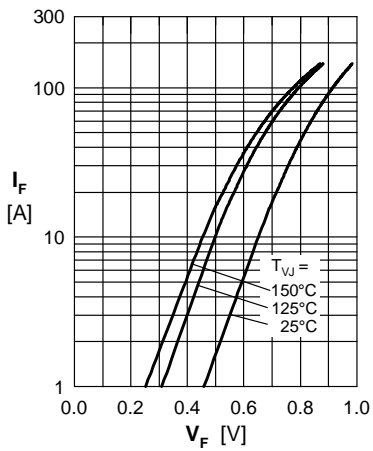


Fig. 1 Maximum forward voltage drop characteristics

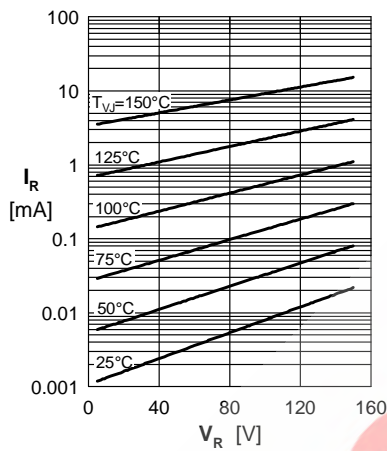


Fig. 2 Typ. reverse current  $I_R$  vs. reverse voltage  $V_R$

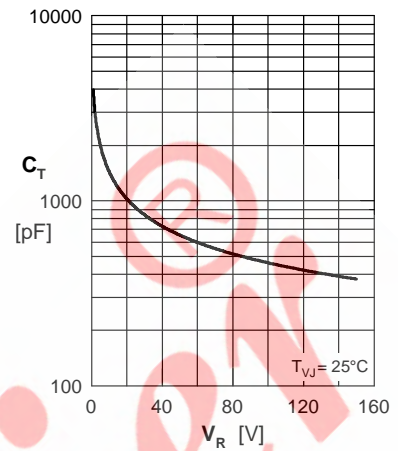


Fig. 3 Typ. junction capacitance  $C_T$  vs. reverse voltage  $V_R$

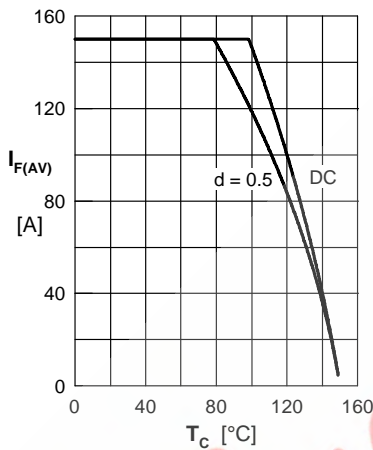


Fig. 4 Average forward current  $I_{F(AV)}$  vs. case temperature  $T_C$

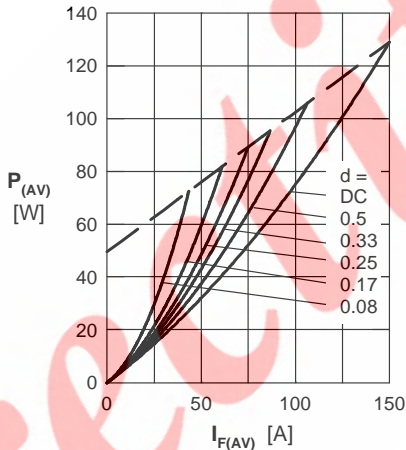


Fig. 5 Forward power loss characteristics

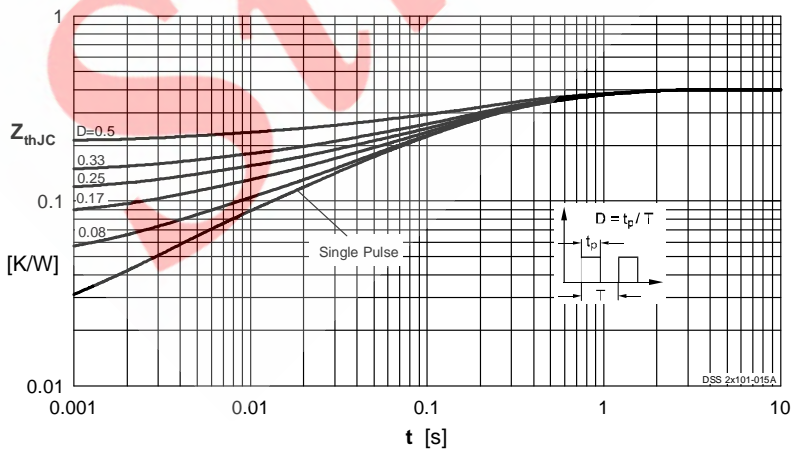


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode

