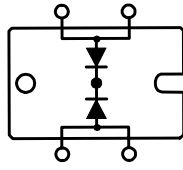
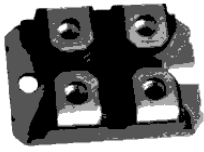
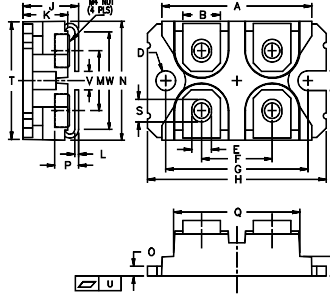


# MBR2x160-100

## Power Schottky Rectifier - Non isolated



Dimensions SOT-227(ISOTOP)



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	31.50	31.88	1.240	1.255
B	7.60	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

	$V_{RSM}$	$V_{RRM}$
	V	V
<b>MBR2x160-100</b>	100	100

Symbol	Test Conditions	Maximum Ratings	Unit
$I_{FRMS}$		200	
$I_{FAVM}$	$T_C=95^{\circ}C$ ; rectangular, $d=0.5$	160	A
$I_{FAVM}$	$T_C=95^{\circ}C$ ; rectangular, $d=0.5$ ; per device	320	
$I_{FSM}$	$T_{VJ}=45^{\circ}C$ ; $t_p=10ms$ (50Hz), sine	1400	A
$E_{AS}$	$I_{AS}=17A$ ; $L=180\mu H$ ; $T_{VJ}=25^{\circ}C$ ; non repetitive	31	mJ
$I_{AR}$	$V_A=1.5 \cdot V_{RRM}$ typ.; $f=10kHz$ ; repetitive	1.7	A
$(dv/dt)_{cr}$		5000	V/us
$T_{VJ}$		-40...+150	$^{\circ}C$
$T_{VJM}$		150	
$T_{stg}$		-40...+150	
$P_{tot}$	$T_C=25^{\circ}C$	410	W
$M_d$	mounting torque (M4); terminal connection torque (M4)	1.1-1.5/9-13	Nm/lb.in.
<b>Weight</b>	typical	30	g

Symbol	Test Conditions	Characteristic Values		Unit
		typ.	max.	
$I_R$	$T_{VJ}=25^{\circ}C$ ; $V_R=V_{RRM}$ $T_{VJ}=125^{\circ}C$ ; $V_R=V_{RRM}$		4 40	mA
$V_F$	$I_F=160A$ ; $T_{VJ}=125^{\circ}C$ $I_F=160A$ ; $T_{VJ}=25^{\circ}C$ $I_F=320A$ ; $T_{VJ}=125^{\circ}C$		0.80 0.92 1.06	V
$R_{thJC}$ $R_{thCH}$		0.15	0.30	K/W

### FEATURES

- \* International standard package miniBLOC
- \* Very low  $V_F$
- \* Extremely low switching losses
- \* Low  $I_{RM}$ -values

### 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