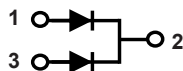
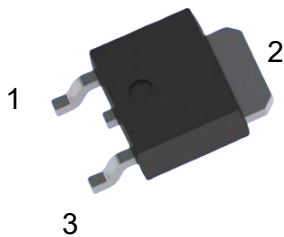


Schottky Barrier Rectifier

TO-252
MBR30100D



Features

- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

Applications

- DC/DC Converters
- AC/DC Adaptors
- Switching Power Supplies
- Freewheeling Diodes

Maximum ratings and electrical characteristics (T_J = 25°C unless otherwise noted)

Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			VRRM	100		V
Maximum average forward rectified current	per device		IF(AV)	30		A
	per diode			15		
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode			IFSM	330		A
Operating junction and storage temperature range			T _J , T _{STG}	-50 to +150		°C
Typical thermal resistance per leg		TO-252	R _{θJC}	6		°C/W
Instantaneous forward voltage per diode			VF(1)	TYP.	MAX.	V
	IF=5A	T _J =25°C		0.71	0.78	
	IF=5A	T _J =125°C		0.57	-	
	IF=15A	T _J =25°C		0.81	0.88	
	IF=15A	T _J =125°C		0.73	-	
Instantaneous reverse current per diode at rated reverse voltage		T _J =25°C	IR(2)	1	20	uA
		T _J =125°C		1	-	mA

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

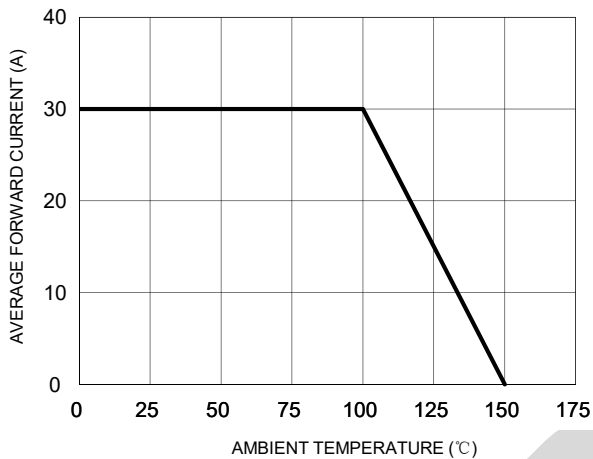


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

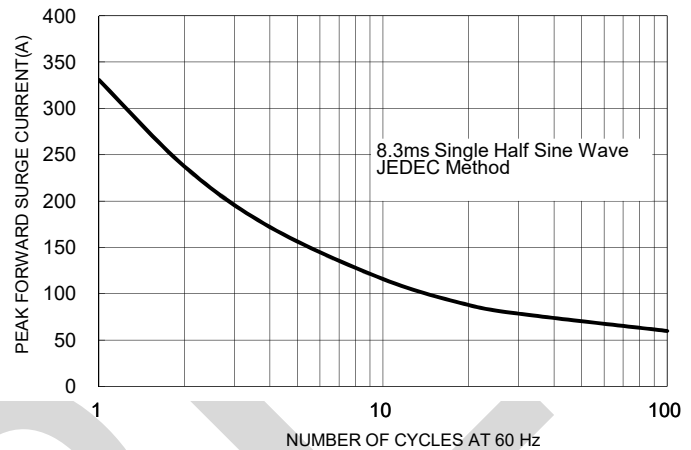


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

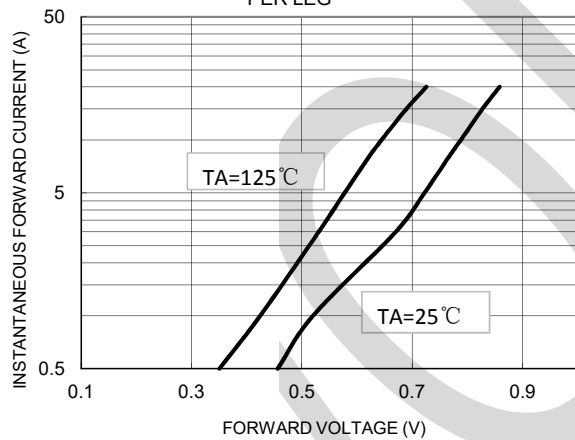
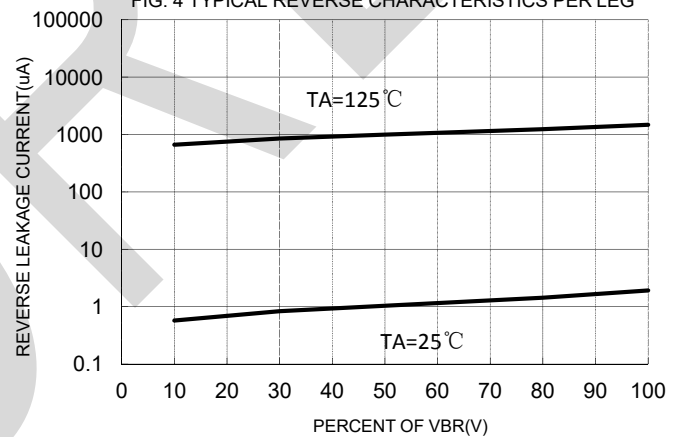
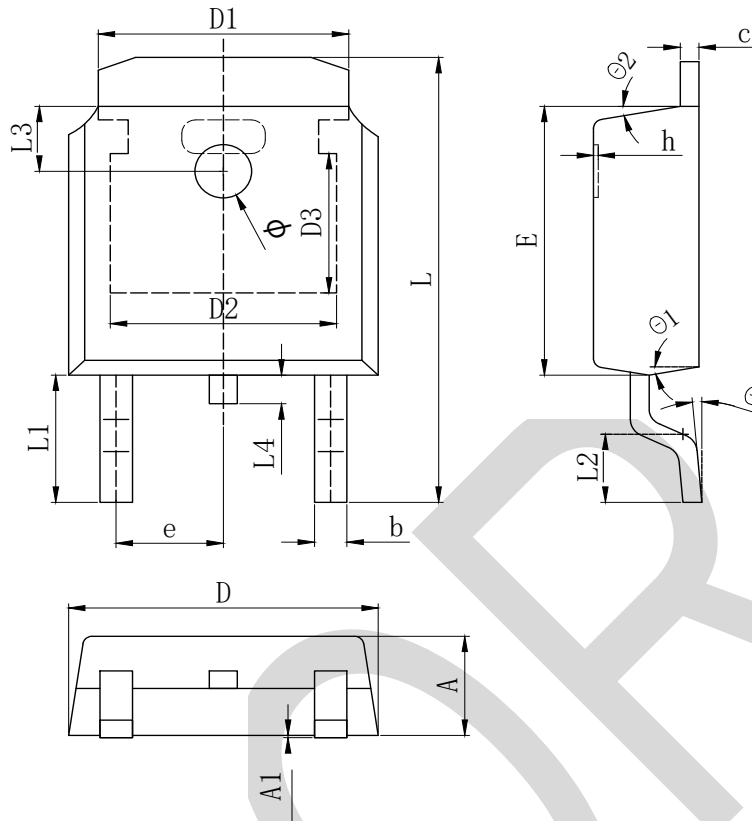


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



PACKAGE OUTLINE DIMENSIONS

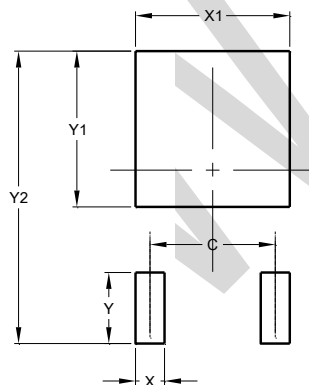
TO-252 Package Information



SYMBOL	MILLIMETER		
	MIN	Typ.	MAX
A	2.200	2.300	2.400
A1	0.000		0.127
b	0.640	0.690	0.740
c	0.460	0.520	0.580
D	6.500	6.600	6.700
D1	5.334 REF		
D2	4.826 REF		
D3	3.166 REF		
E	6.000	6.100	6.200
e	2.286 TYP		
h	0.000	0.100	0.200
L	9.900	10.100	10.300
L1	2.888 REF		
L2	1.400	1.550	1.700
L3	1.600 REF		
L4	0.600	0.800	1.000
φ	1.100	1.200	1.300
θ	0°		8°
θ 1	9° TYP		
θ 2	9° TYP		

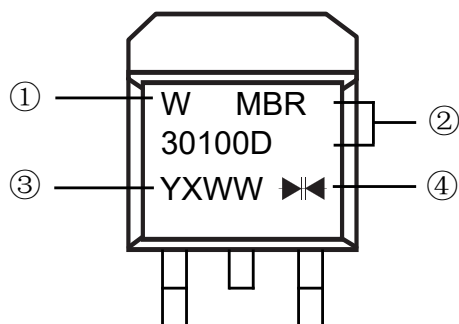
Suggested Pad Layout

TO252 (DPAK)



Dimensions	Value (in mm)
C	4.572
X	1.060
X1	5.632
Y	2.600
Y1	5.700
Y2	10.700

Marking Information



① W : Company's trademark

② Product model : MBR30100D

③ PDC information :

Y X WW

WW: Week code(01 to 53)

X: Internal identification code

Y: Year code(ex:0=2020)

④  Double wafer