

MBRD20100CT

Rev.C Feb.-2023

/ Descriptions

TO-252

Schottky Diode in a TO-252 Plastic Package.

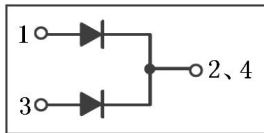
/ Features

Low power loss, high efficiency, HF Product.

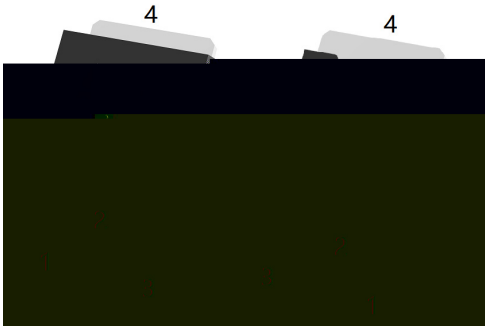
/ Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

/ Equivalent Circuit



/ Pinning



PIN1 Anode

PIN 2,4 Cathode

PIN 3 Anode

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{RM}	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectified Forward Current	$I_{F(AV)}$ (per leg)	10	A
	$I_{F(AV)}$ total	20	A
Non Repetitive Peak Surge Current	I_{FSM}	150	A
Thermal resistance, junction to case	R_{Jc}	6	/W
Junction Temperature Range	T_{jMAX}	150	
Storage Temperature Range	T_{stg}	-55 150	

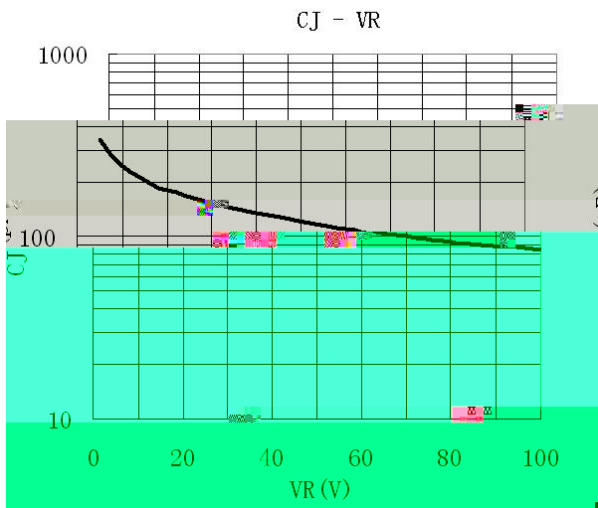
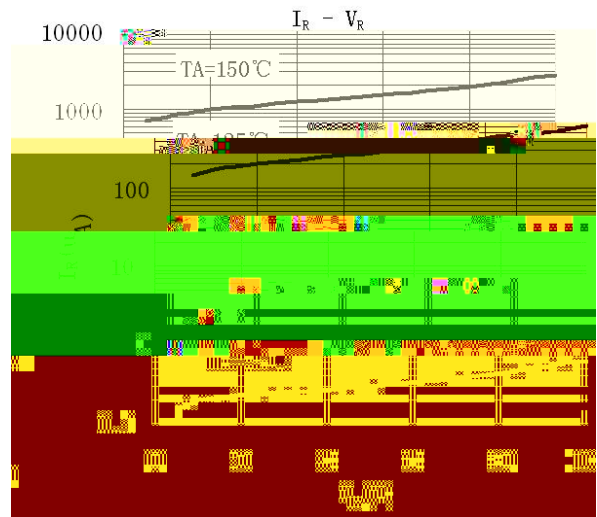
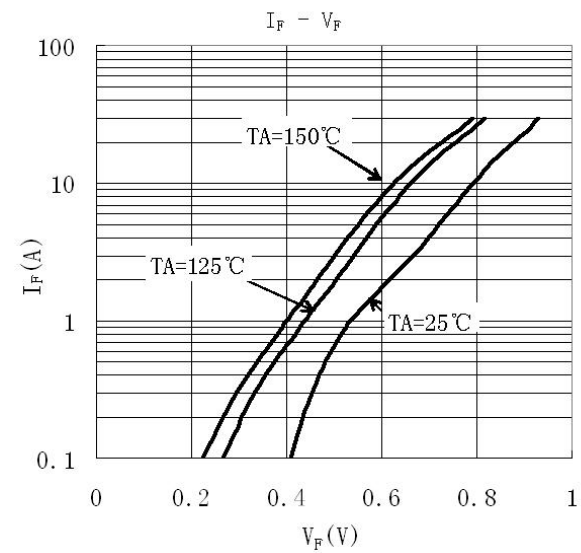
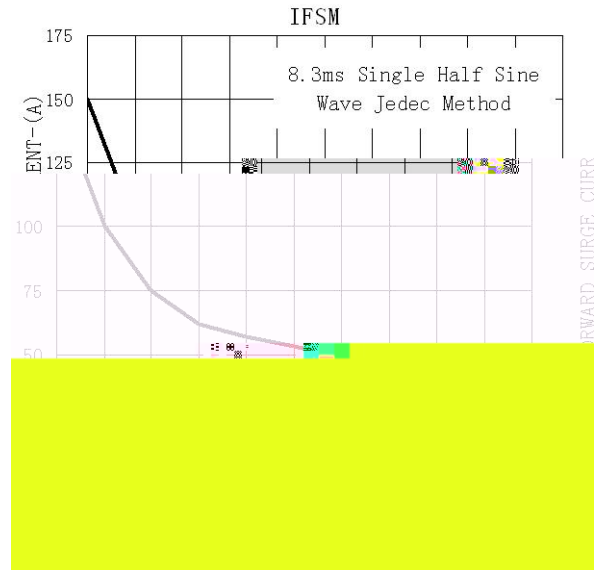
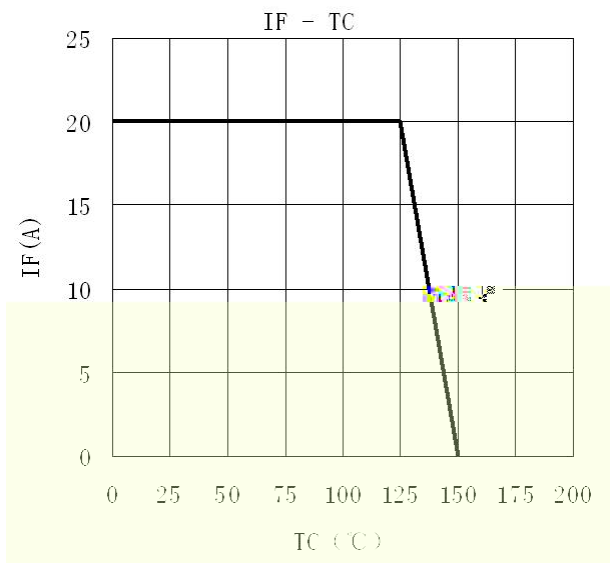
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_{BR}	$I_R=0.3mA$	100			V
Forward Voltage	V_F	$I_F=10A$ $T_J=25$			0.85	V
		$I_F=10A$ $T_J=125$			0.7	V
		$I_F=20A$ $T_J=25$			0.95	V
		$I_F=20A$ $T_J=125$			0.85	V
Instantaneous Reverse Current	I_R Note 1	$V_R=100V$ $T_J=25$			0.15	mA
		$V_R=70V$ $T_J=125$			1.0	mA
		$V_R=100V$ $T_J=125$			150	mA

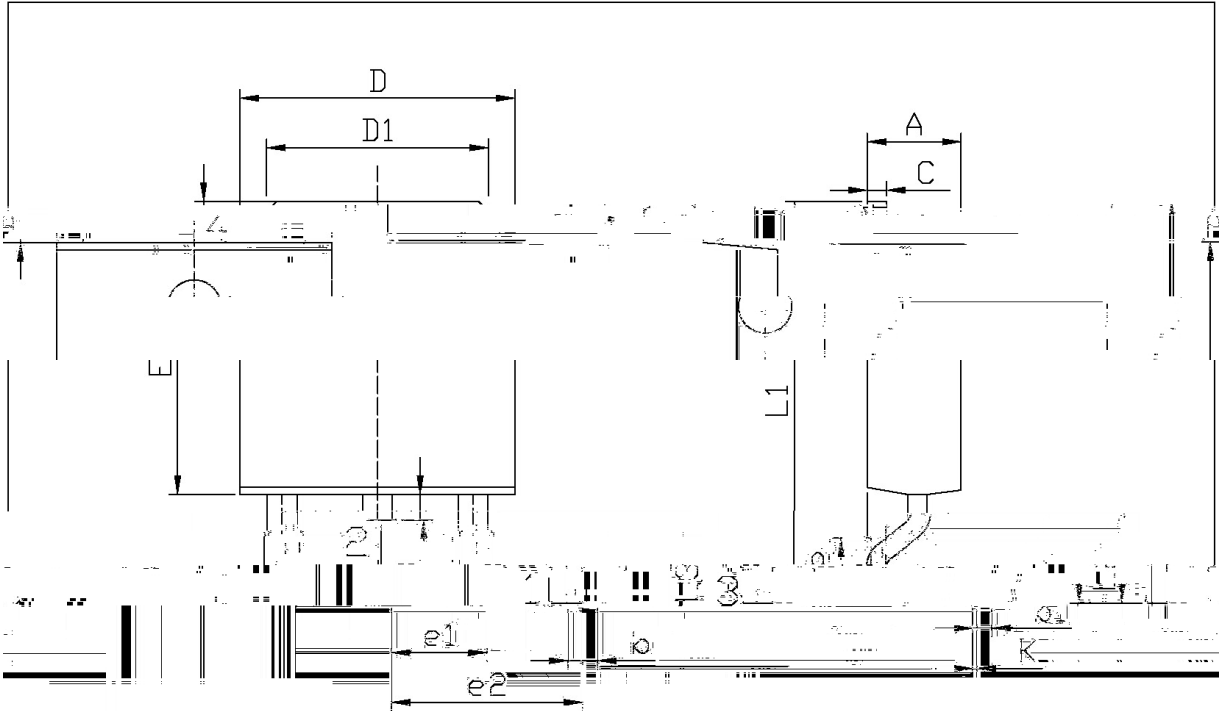
/Notes

1. /Short duration pulse test used to minimize self-heating effect.
2. / Unless otherwise noted, values for the parameters of a single chip

/ Electrical Characteristic Curve



/ Package Dimensions

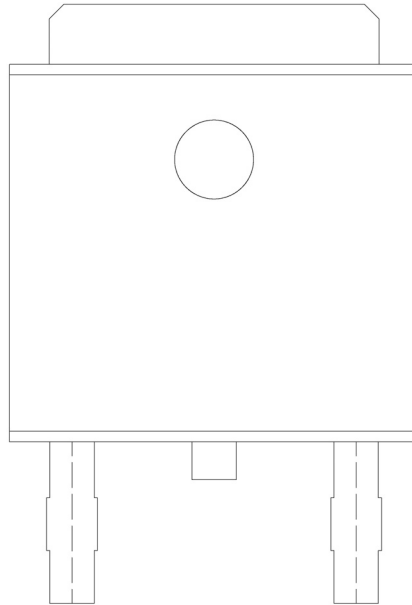


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.50	0.90	e2	4.43	4.73
b1	0.45	0.55	L1	9.45	9.95
C	0.45	0.55	L2	1.25	1.75
D	6.45	6.75	L3	0.60	0.90
D1	5.10	5.50	K	0.00	0.10

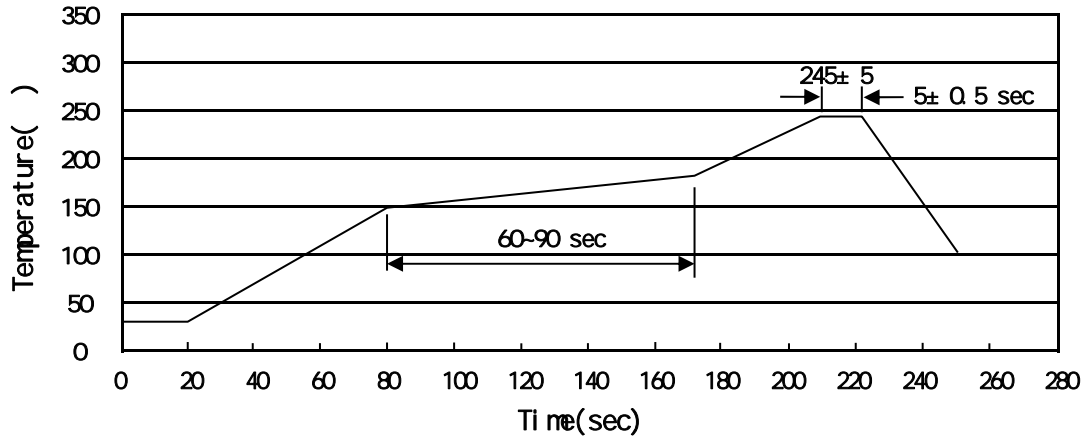
TO-252

/ Marking Instructions



structions1.9j5/.5536Note:29 TD()TjT*()8 0 0243.46.7

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Uni /Reel	Reel /Inne Box	Uni /Inne Box	Inne Boxe /Oue Box	Uni /Oue Box	Reel	Inne Box	Oue Box
TO-252	2,500	2	5,000	6	30,000	13 x16	360x360x50	380x335x366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Uni /Tube	Tube /Inne Box	Uni /Inne Box	Inne Boxe /Oue Box	Uni /Oue Box	Tube	Inne Box	Oue Box
TO-251/252	75	48	3,600	5	18,000	526x20.5x5.25	555x164x50	575x290x180

/ Notices