

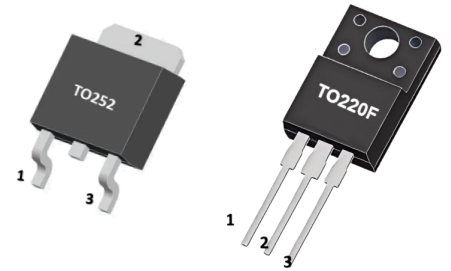
SCHOTTKY BARRIER RECTIFIER

■ **DESCRIPTION**

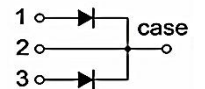
The MBR10200CT meet the ROHS and Green Product requirement with full function reliability approved.

■ **FEATURE**

- *Schottky Barrier Chip
- *Guard Ring Die Construction for Transient Protection
- *Low Power Loss,High Efficiency
- *High Surge Capability
- *High Current Capability and Low Forward Voltage Drop
- *For Use in Low Voltage, High Frequency Inverters,Free Wheeling, and Polarity Protection Applications



- 1. ANODE
- 2. CATHODE
- 3. ANODE



■ **ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)**

SYMBOL	PARAMETER		VALUE	UNIT
VRRM	Peak repetitive reverse voltage		200	V
VRWM	Working peak reverse voltage		200	V
VR	DC blocking voltage		200	V
VR(RMS)	RMS reverse voltage		140	V
IO	Average rectified output current		10 (5*2)	A
IFSM	Non-Repetitive peak forward surge current(8.3ms half sine wave)		100*2	A
Tj	Junction temperature		175	°C
Tstg	Storage temperature		-55~+150	°C
RθJA	Thermal Resistance fromJunction to Ambient	TO-252	110	°C/W
		TO-220F	60	
RθJc	Thermal Resistance From Junction To Case	TO-252	6	°C/W
		TO-220F	4	

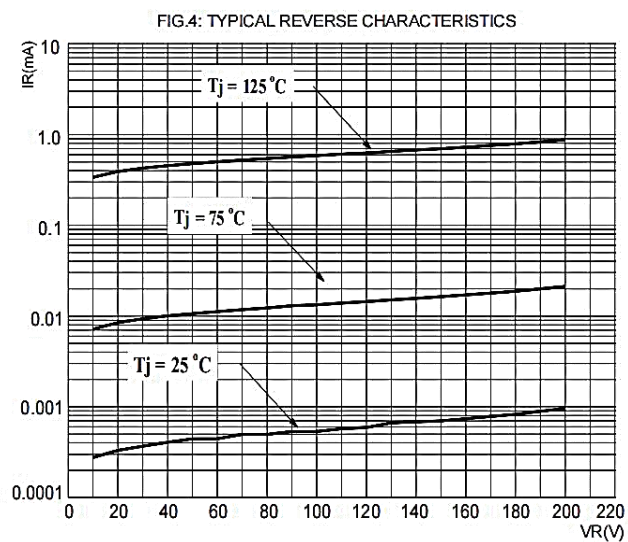
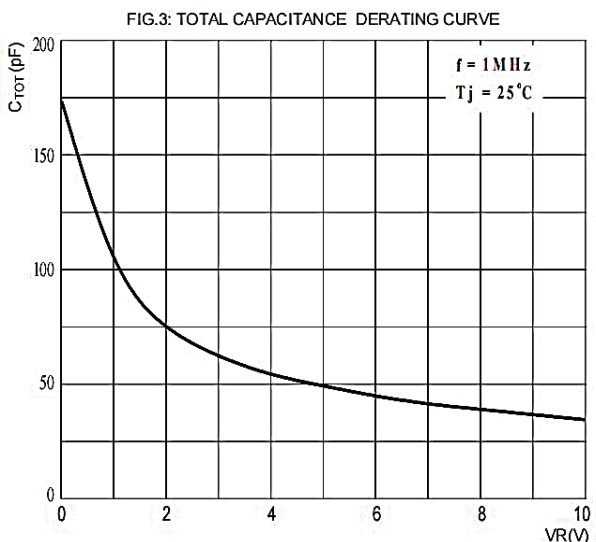
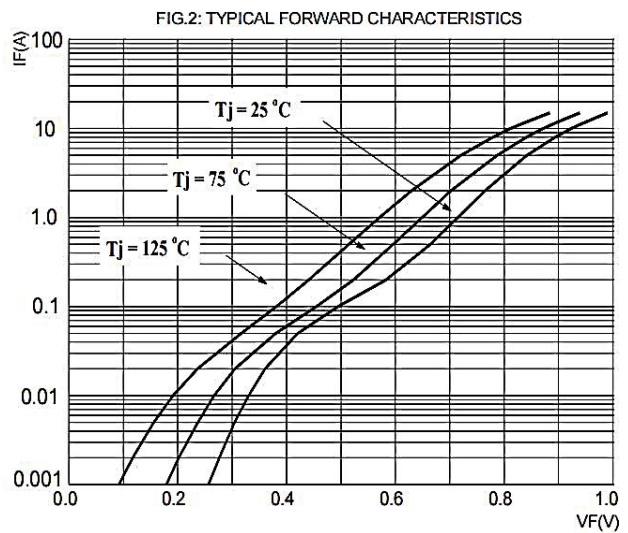
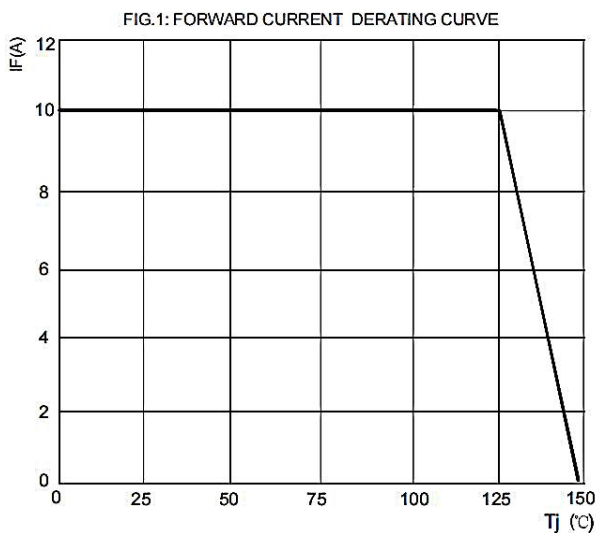
Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **ELECTRICAL CHARACTERISTICS** (TA=25°C, unless otherwise specified)

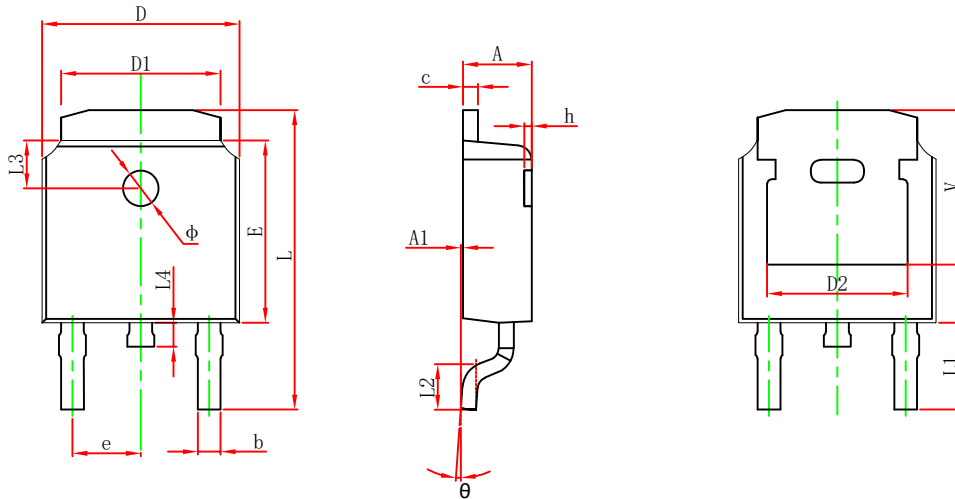
PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Reverse voltage	V _(BR)	I _R =0.1mA		200			V
Reverse current	I _R	V _R =200V			0.5	5	μA
Forward voltage	V _{F1}	I _F =3A	T _j =25 °C		0.82		V
	V _{F2}	I _F =5A	T _j =25 °C		0.85	0.88	V
			T _j =125 °C			0.74	V
V _{F3}	I _F =10A	T _j =25 °C			0.95	V	
Typical total capacitance	C _{tot}	V _R =5V, f=1MHz			50		pF

*Pulsetest:pulsewidth≤300μs,dutycycle≤2.0%.

■ **TYPICAL CHARACTERISTICS**

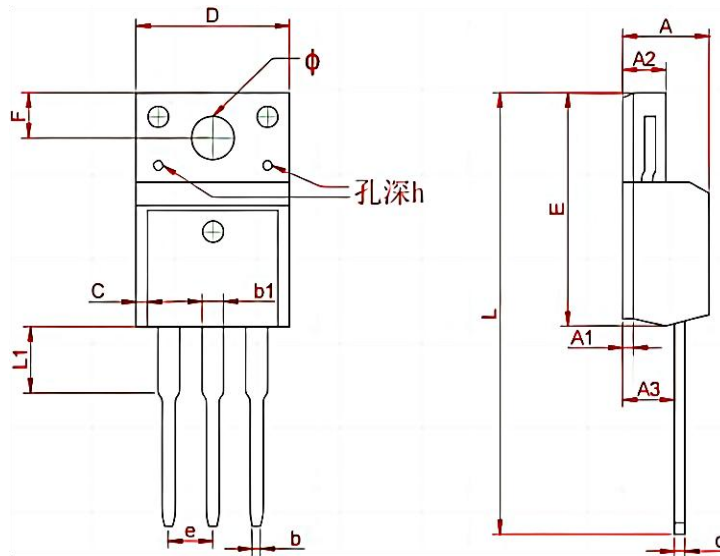


■ TO - 252 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
phi	1.100	1.300	0.043	0.051
theta	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

■ TO - 220F Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max	Min	Max
A	4.300	4.750	0.169	0.185
A1	1.830 REF		0.072 REF	
A2	2.300	2.850	0.090	0.112
A3	2.500	2.900	0.098	0.114
b	0.400	0.420	0.016	0.016
b1	1.220	1.280	0.048	0.050
C	0.690	0.720	0.027	0.028
c	0.490	0.510	0.019	0.020
D	9.960	10.200	0.392	0.400
E	15.000	15.950	0.588	0.625
e	2.574 TYP		0.101TYP	
F	3.470 REF		0.136 REF	
y	3.200 REF		0.125 REF	
h	0.000	0.300	0.000	0.012
L	28.780	28.900	1.128	1.133
L1	2.990	3.100	0.117	0.122