

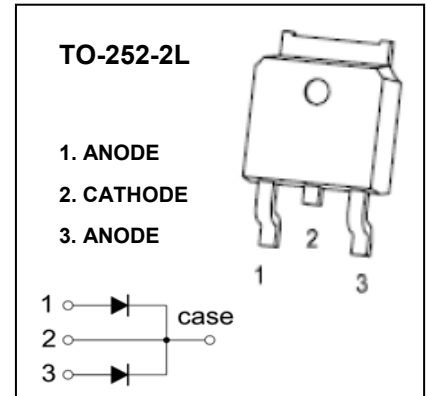


TO-252-2L Plastic-Encapsulate Diodes

MBRD20150CT SCHOTTKY BARRIER RECTIFIER

FEATURES

- 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



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	150	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	105	V
I_o	Average rectified output current @ $T_c=155^{\circ}\text{C}$	20	A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	180	A
P_D	Power dissipation	1.25	W
$R_{\theta JA}$	Thermal resistance from junction to ambient	80	$^{\circ}\text{C}/\text{W}$
T_j	Junction temperature	125	$^{\circ}\text{C}$
T_{stg}	Storage temperature	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

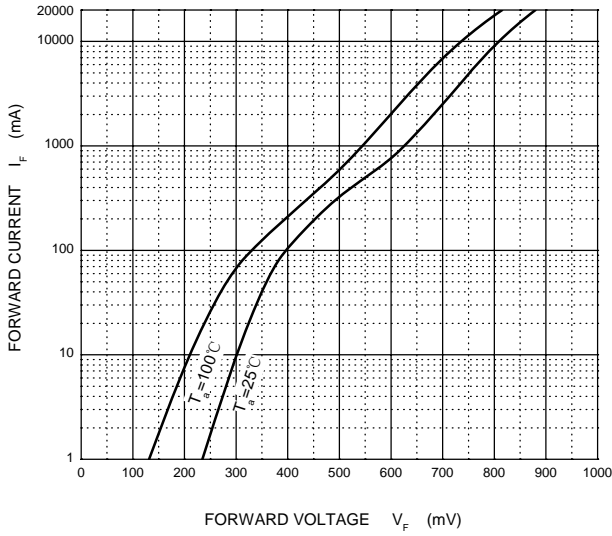
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=1\text{mA}$	150			V
Reverse current	I_R	$V_R=150\text{V}$			100	μA
Forward voltage	V_{F1}	$I_F=10\text{A}$			1	V
	V_{F2}^*	$I_F=20\text{A}$			1.2	V
Typical total capacitance	C_{tot}	$V_R=4\text{V}, f=1\text{MHz}$		100		pF

*Pulse test

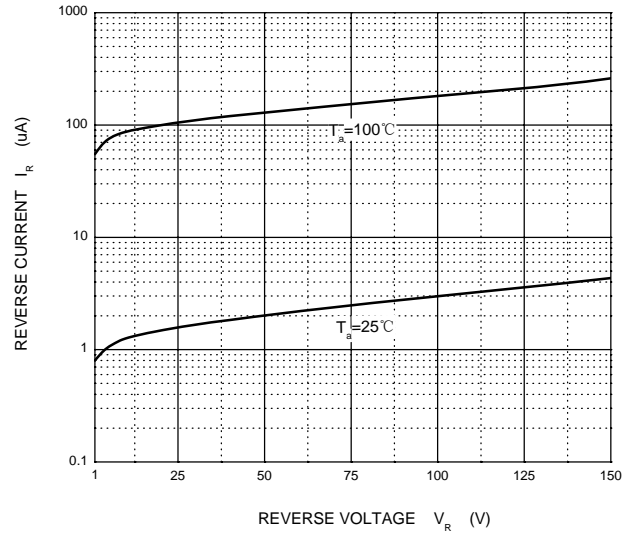
Typical Characteristics

MBRD20150CT

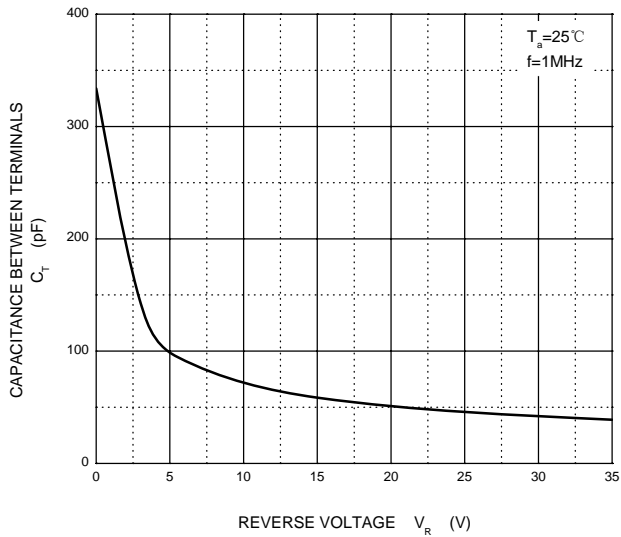
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

