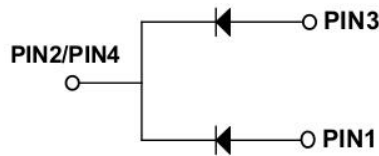


SCHOTTKY BARRIER RECTIFIER DIODE



MBR10100CT
TO-200
PLASTIC PACKAGE

Dual, Common Cathode

MBR10100CT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

Absolute Maximum Ratings

Parameter	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	V_{RRM}	100	V
*Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	$*I_{FAV}$	10	A
Typical Thermal Resistance(per leg)	$R_{\theta Jc}$	2	$^{\circ}C/W$
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	I_{FSM}	120	A
Maximum Rate of Voltage Change (at Rated VR)	dv/dt	10000	V/ μs
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	0.5	A
Operating Junction Temperature	T_J	-40 to 150	$^{\circ}C$
Storage Temperature	T_{STG}	-40 to 150	$^{\circ}C$

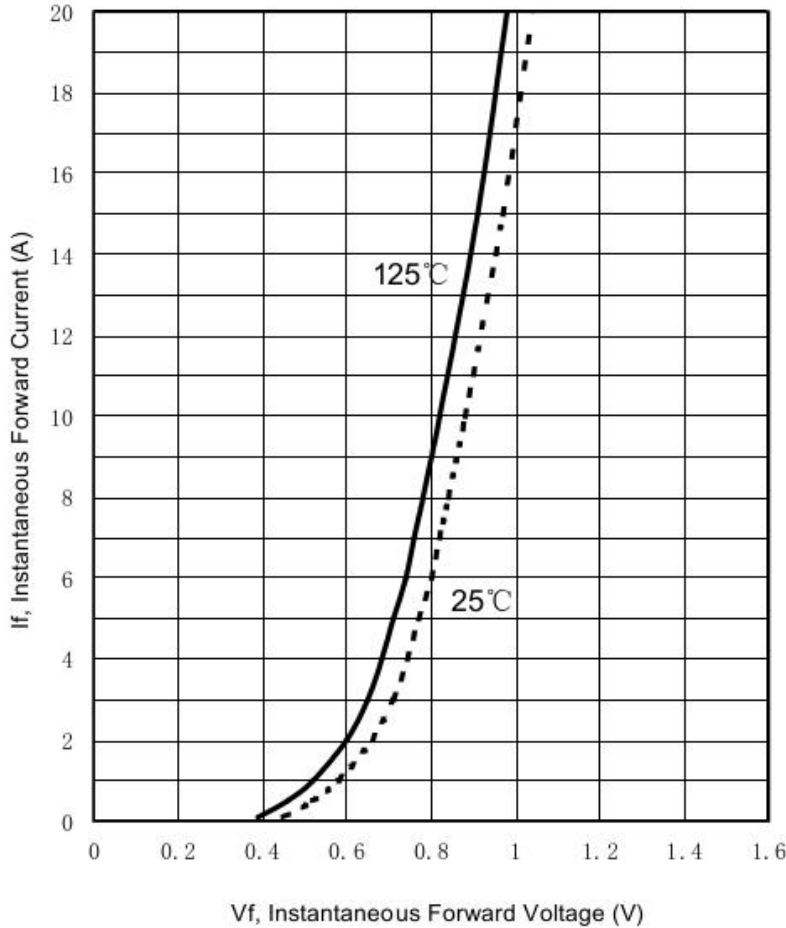
Electrical Characteristics

Parameter	Symbol	Test Condition		Typ.	Max.	Unit
Maximum reverse current	I_R	$T_J=25^{\circ}C$	$V_R=V_{RRM}$		0.05	mA
		$T_J=125^{\circ}C$			25	mA
Maximum instantaneous forward vol	V_F	$T_J=25^{\circ}C$	$I_F=5A$	0.78	0.83	V
		$T_J=125^{\circ}C$	$I_F=5A$		0.72	V

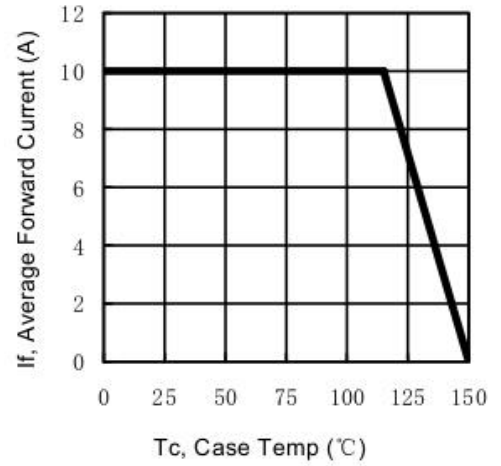
$$*I_{F(AV)} = 5A \times 2$$

CHARACTERISTIC CURVES

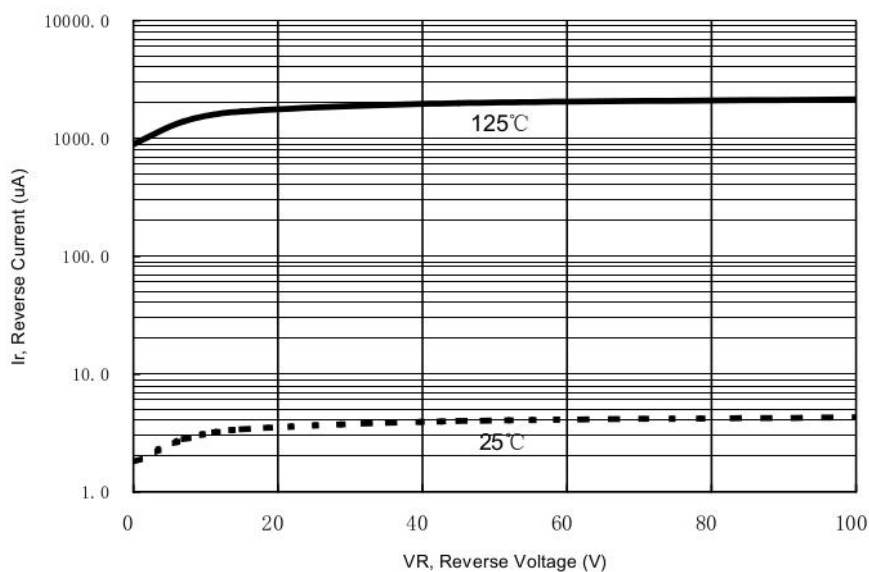
The forward voltage and forward current curve



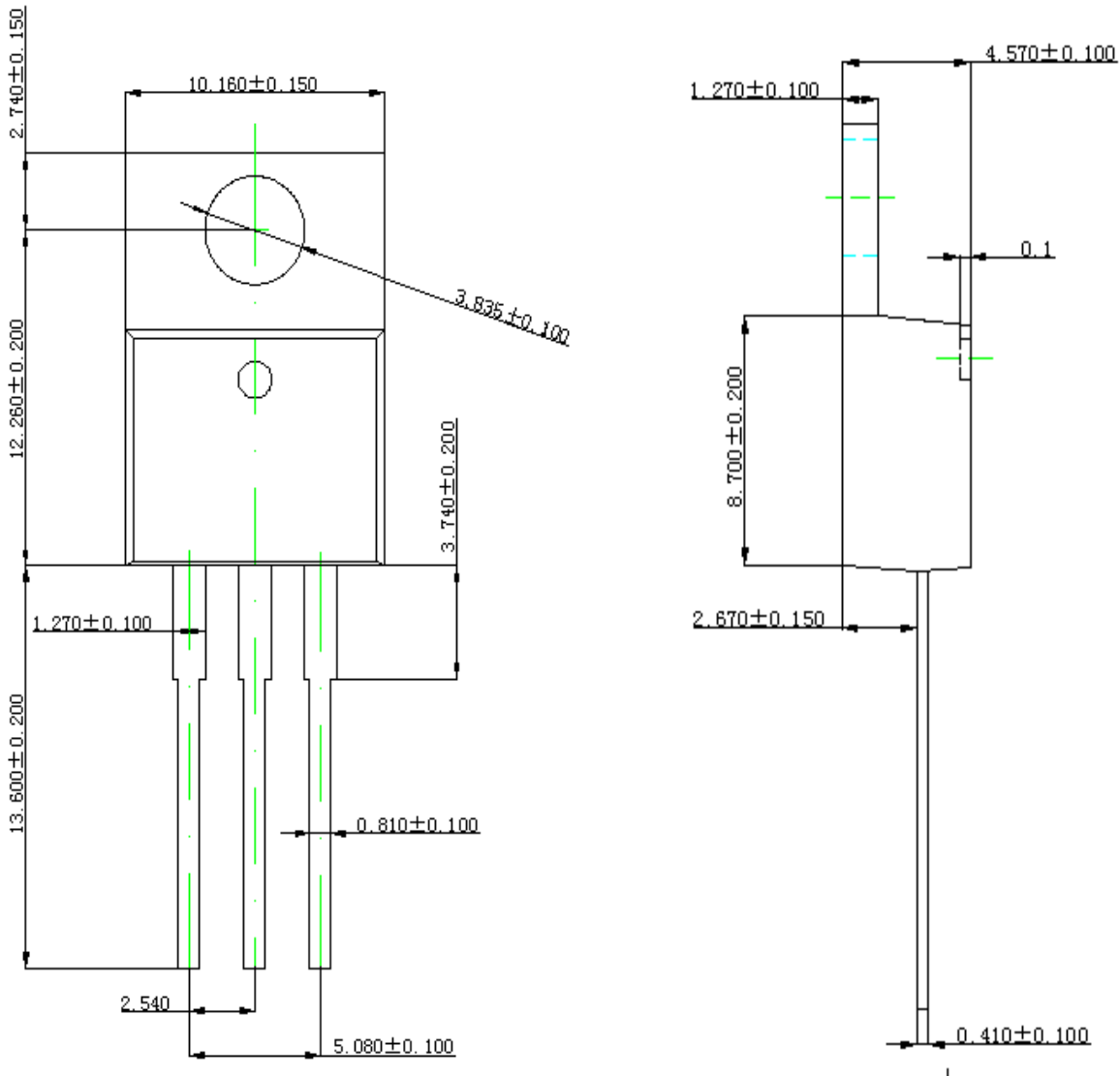
Current derating curve, per element



The reverse leak current and the reverse voltage (single-device) curve.



TO-220AB PACKAGE OUTLINE AND DIMENSIONS



Customer Notes:

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

DISCLAIMER

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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