60V Trench Schottky Rectifier

Lead Free Package and Finish

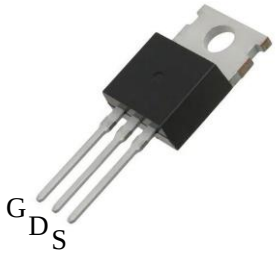
V_{RRM}	IF	V_F
60V	2×15A	0.55V

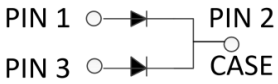
General Features

- Trench Schottky technology
- Lower forward voltage
- Lower power loss,high efficiency
- Softest, fast switching capability
- High surge capability

Applications

- high frequency rectifier of switching mode power supplies
- freewheeling diodes
- DC/DC converters





TO-220

Package No to Scale

Ordering Information

Part Number	Package	Brand
MBR30G60CT	TO-220	

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

Parameter	Symbol	Test Condition		Min.	Typ.	Max.	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	I_R =250μA		64	72	-	V
Maximum Average Forward Rectified Current	I_F	-		-	-	15	A
Peak Forward Surge Current	I_{FSM}	1/2 60hz		-	-	200	A
Maximum reverse current per diode at working peak reverse voltage	I_R	T_A=25℃	V_R =60V	-	4	15	uA
		T_A=125℃		-	5	20	mA
Static Forward Voltage	V_F	T_A=25℃	I_F=1A	-	0.38	0.45	V
			I_F=10A	-	0.51	0.56	V
			I_F=15A	-	0.55	0.60	V
		T_A=125℃	I_F=1A	-	0.24	0.30	V
			I_F=10A	-	0.44	0.50	V
			I_F=15A	-	0.52	0.58	V
Typical junction capacitance	Cj	VR=4V,f=1MHz		1100			pF
Typical Thermal Resistance	$R_{\theta JC}$	TO-220		2			°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55℃ to 150℃ Max					°C

Caution: Stresses greater than those listed in the "Absolute Maximum Ratings" may cause permanent damage to the device.

©2024 Perfect Intelligent Power Semiconductor Co., Ltd. All rights reserved. Information and data in this document are owned by PIP Semiconductors and may not be edited, reproduced, or redistributed in any way without written consent from PIP.

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

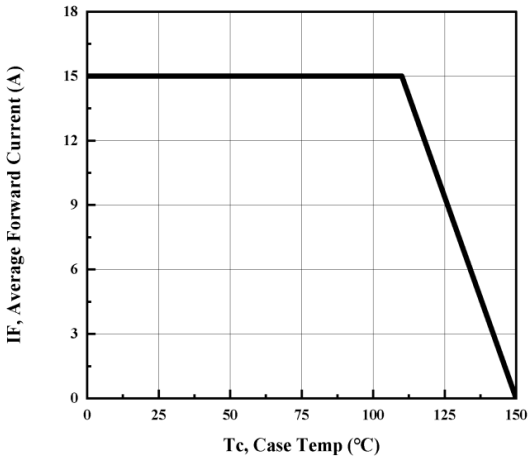


Fig. 1: Forward Current Derating Curve

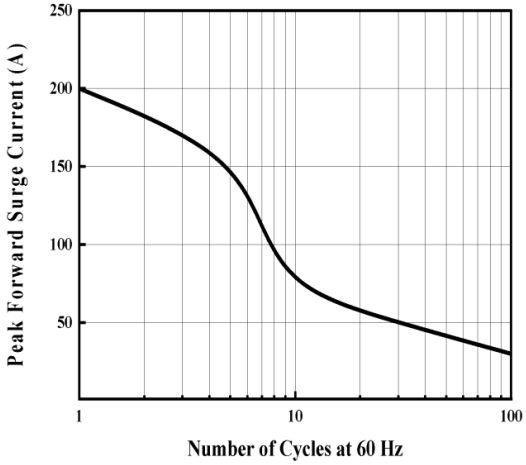


Fig. 2: Maximum Repetitive Surge Current

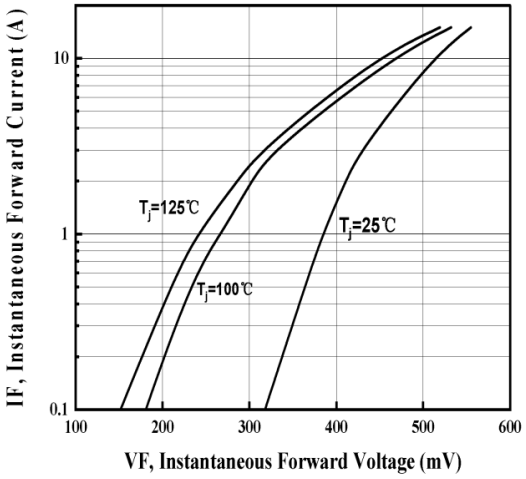


Fig. 3: Typical Forward Voltage

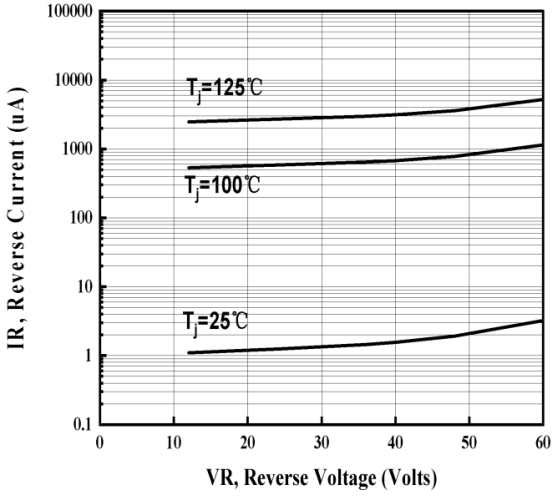


Fig. 4: Typical Reverse Current

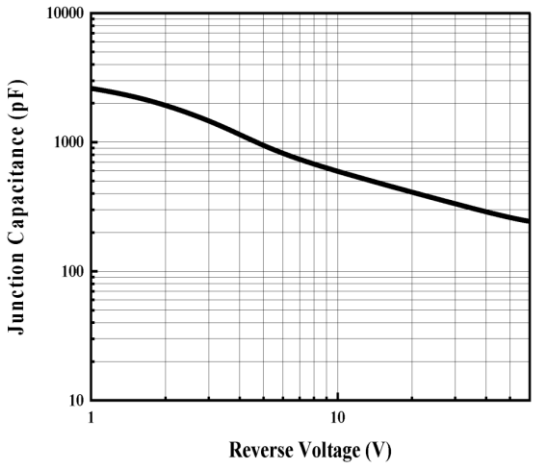


Fig. 5: Typical Junction Capacitance

©2024 Perfect Intelligent Power Semiconductor Co., Ltd. All rights reserved. Information and data in this document are owned by PIP Semiconductors and may not be edited, reproduced, or redistributed in any way without written consent from PIP.

Disclaimers:

Perfect Intelligent Power Semiconductor Co., Ltd (PIP) reserves the right to make changes without notice in order to improve reliability, function or design and to discontinue any product or service without notice. Customers should obtain the latest relevant information before orders and should verify that such information is current and complete. All products are sold subject to PIP's terms and conditions supplied at the time of order acknowledgement.

Perfect Intelligent Power Semiconductor Co., Ltd warrants performance of its hardware products to the specifications at the time of sale, Testing, reliability and quality control are used to the extent PIP deems necessary to support this warrantee. Except where agreed upon by contractual agreement, testing of all parameters of each product is not necessarily performed.

Perfect Intelligent Power Semiconductor Co., Ltd does not assume any liability arising from the use of any product or circuit designs described herein. Customers are responsible for their products and applications using PIP's components. To minimize risk, customers must provide adequate design and operating safeguards.

Perfect Intelligent Power Semiconductor Co., Ltd does not warrant or convey any license either expressed or implied under its patent rights, nor the rights of others. Reproduction of information in PIP's data sheets or data books is permissible only if reproduction is without modification or alteration. Reproduction of this information with any alteration is an unfair and deceptive business practice. Perfect Intelligent Power Semiconductor Co., Ltd is not responsible or liable for such altered documentation.

Resale of PIP's products with statements different from or beyond the parameters stated by Perfect Intelligent Power Semiconductor Co., Ltd for that product or service voids all express or implied warrantees for the associated PIP's product or service and is unfair and deceptive business practice. Perfect Intelligent Power Semiconductor Co., Ltd is not responsible or liable for any such statements.

Life Support Policy:

Perfect Intelligent Power Semiconductor Co., Ltd's products are not authorized for use as critical components in life support devices or systems without the expressed written approval of Perfect Intelligent Power Semiconductor Co., Ltd.

As used herein:

1. Life support devices or systems are devices or systems which:
   a. are intended for surgical implant into the human body,
   b. support or sustain life,
   c. whose failure to perform when properly used in accordance with instructions for used provided in the labeling, can be reasonably expected to result in significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

©2024 Perfect Intelligent Power Semiconductor Co., Ltd. All rights reserved. Information and data in this document are owned by PIP Semiconductors and may not be edited, reproduced, or redistributed in any way without written consent from PIP.