

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units	
Peak Inverse Voltage	V_{RWM}	-	25	V	
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @ $T_C=74^{\circ}C$, rectangular wave form	110	per leg	A
			220	per device	
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	2850	A	

Electrical Characteristics:

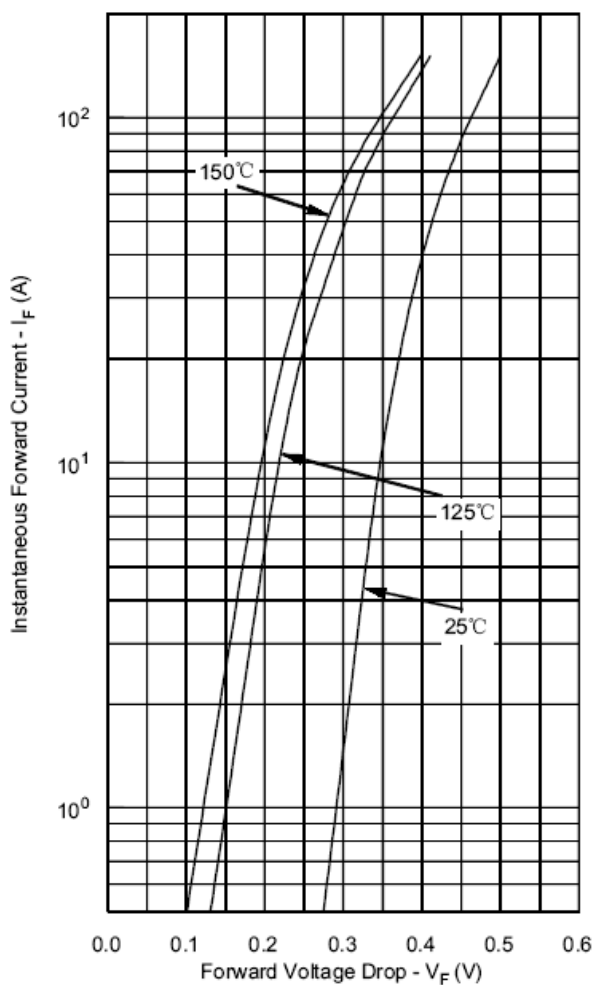
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 110A, Pulse, $T_J = 25^{\circ}C$	0.48	V
	V_{F2}	@ 110A, Pulse, $T_J = 125^{\circ}C$	0.40	V
Max. Reverse Current at DC condition	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	10	mA
Max. Reverse Current	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^{\circ}C$	560	mA
Max. Junction Capacitance	C_T	@ $V_R = 5V$, $T_C = 25^{\circ}C$ $f_{SIG} = 1MHz$	7400	pF
Typical Series Inductance (per leg)	L_S	Measured lead to lead 5 mm from package body	7.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/ μs

* Pulse Width < 300 μs , Duty Cycle < 2%

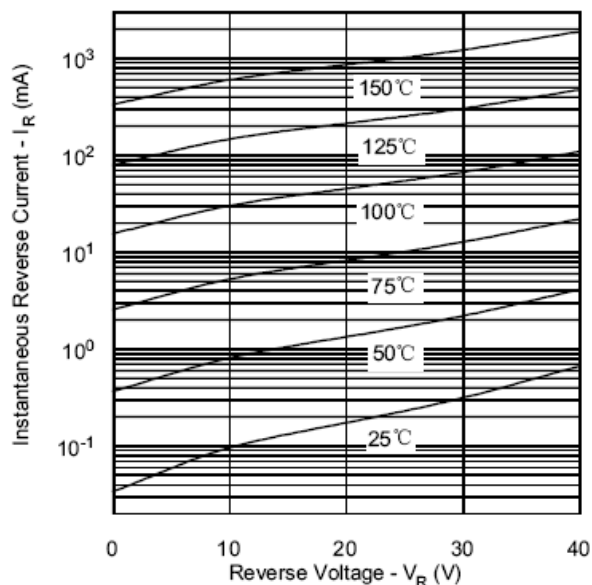
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units	
Max. Junction Temperature	T_J	-	-55 to +150	$^{\circ}C$	
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}C$	
Maximum Thermal Resistance Junction to Case (per leg)	$R_{\theta JC}$	DC operation	0.50	$^{\circ}C/W$	
Maximum Thermal Resistance Junction to Case (per device)	$R_{\theta JC}$	DC operation	0.25	$^{\circ}C/W$	
Typical Thermal Resistance, case to Heat Sink	$R_{\theta cs}$	Mounting surface, smooth and greased	0.10	$^{\circ}C/W$	
Mounting Torque	T_M	-	Mounting Torque	24(min) 35(max)	Kg-cm
			Terminal Torque	35(min) 46(max)	
Approximate Weight	wt	-	79	g	
Case Style	PRM4 (Non-Isolated)				

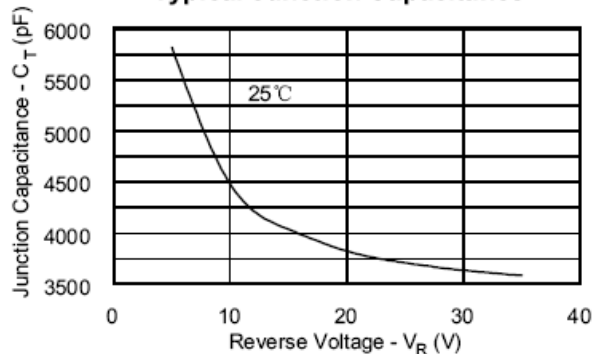
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..