

Features

- Silicon Carbide Schottky Barrier Diode
- Low V_f
- Low I_R
- High-Recovery Speed

Applications

- Switch mode power supplies
- Power Factor Correction
- Secondary Side Rectification
- PV Power Conditioners

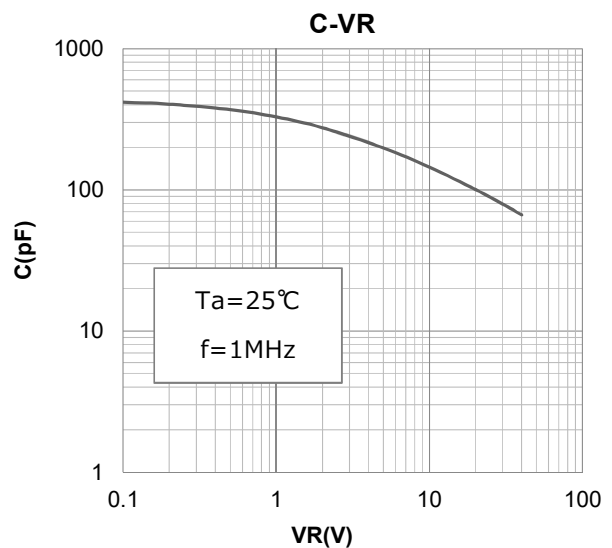
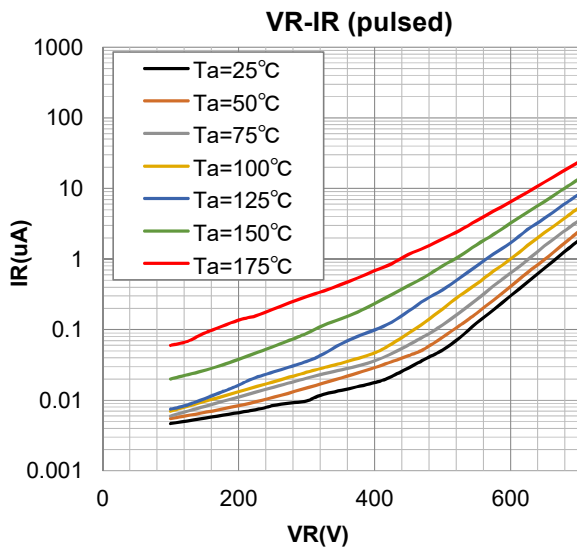
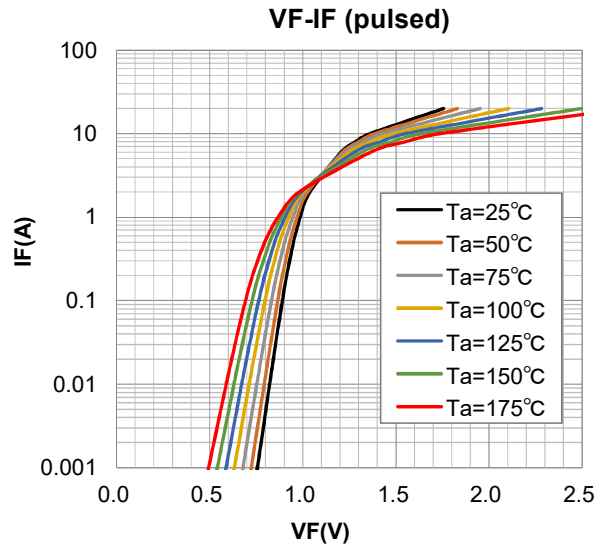
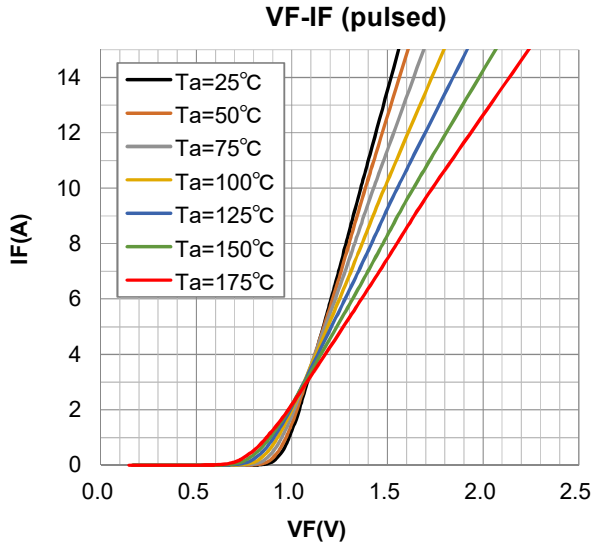
Maximim Ratings (Ta=25°C)

Parameter	Symbol	Conditions	Limit	Unit
Repetitive peak reverse voltage	V_{RM}		650	V
Reverse voltage (DC)	V_R		650	V
Forward current (DC)	I_F		10	A
Surge no repetitive forward current	I_{FSM}	10ms Sinusoidal	70	A
Junction temperature	T_j		175	°C
Storage temperature	T_{stg}		-55 to +175	°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
DC blocking voltage	V_{DC}	$I_R=50\mu A$	650	-	-	V
Forward voltage	V_F	$I_F=10A, T_a=25^\circ C$	-	1.36	1.70	V
		$I_F=10A, T_a=150^\circ C$	-	1.64	-	V
		$I_F=10A, T_a=175^\circ C$	-	1.73	-	V
Reverse current	I_R	$V_R=650V, T_a=25^\circ C$	-	0.7	50	μA
		$V_R=650V, T_a=150^\circ C$	-	7	-	μA
		$V_R=650V, T_a=175^\circ C$	-	12	-	μA
Total capacitance	C	$V_R=1V, f=1MHz$	-	329	-	pF
Total capacitive charge	Q_C	$V_R=400V, di/dt=350A/us$	-	24	-	nC
Switching time	t_c	$V_R=400V, di/dt=350A/us$	-	15	-	nS

Electrical Characteristics curves



NOTE

- 1) This document is for reference only.
- 2) Please request for the specification sheet before use.
- 3) Since the products are in wafer form, the values in this document are for reference only.
- 4) Although we strive to improve the quality of our products, they may malfunction or fail. When using this product, please implement a safety design suitable for the system within your responsibility.
- 5) Although this document has been prepared with great care, we assume no responsibility for any damages incurred due to errors in the provided information.
- 6) If the operating environment (e.g., high temperature, high voltage, high current) is severe, the reverse current may become excessively large and the device may be destroyed due to the increased reverse
- 7) The absolute maximum ratings must not be exceeded even momentarily. Do not exceed the absolute maximum ratings for any of the multiple ratings.
- 8) In particular, when evaluating or using the product in a resin-encapsulated package or in a sealed environment, be sure to measure the temperature and confirm that the maximum junction temperature designated as the maximum ratings is not exceeded.
- 9) The products described in this document are intended for use in general electronic equipment (e.g., AV equipment, OA equipment, home appliances).
- 10) This product is not intended for use in products whose manufacture, use, or sale is prohibited by domestic or foreign laws or regulations.
- 11) Do not use the information contained in this document or this product for the purpose of developing destructive weapons for military use.
- 12) When exporting this product, please comply with applicable export laws and regulations and follow the necessary procedures.
- 13) The information in this document is subject to change without notice.
- 14) The process flow and process conditions of this product are subject to change without notice.