

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

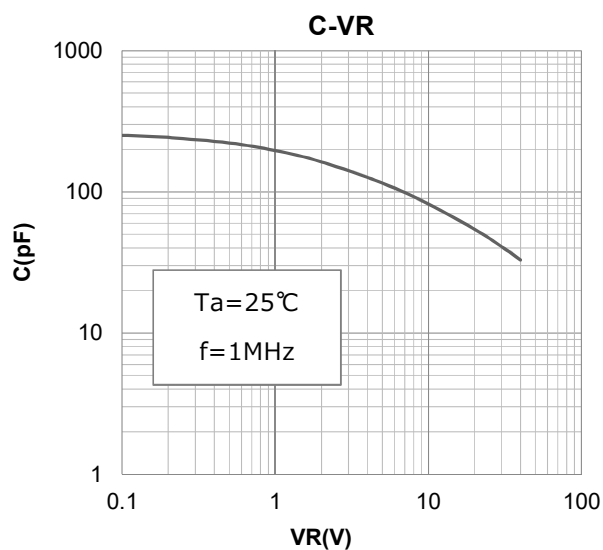
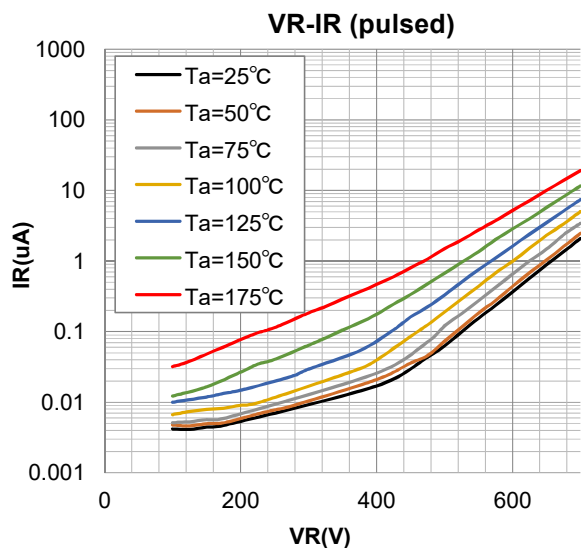
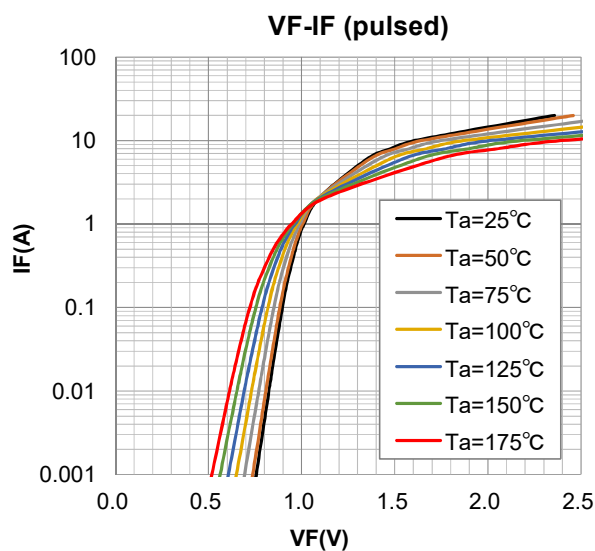
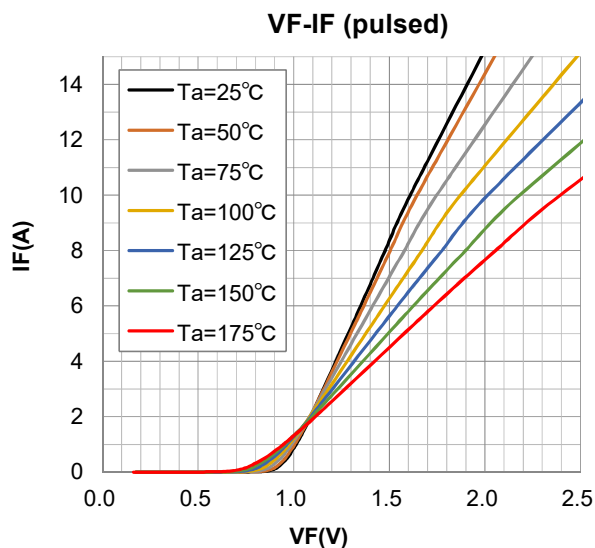
Maximim Ratings (Ta=25°C)

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		6	A
Surge no repetitive forward current	I_{FSM}	10ms Sinusoidal	60	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}	$I_R=30\mu A$	650	-	-	V
Forward voltage	V_F	$I_F=6A, T_a=25^\circ C$	-	1.35	1.70	V
		$I_F=6A, T_a=150^\circ C$	-	1.63	-	V
		$I_F=6A, T_a=175^\circ C$	-	1.73	-	V
Reverse current	I_R	$V_R=650V, T_a=25^\circ C$	-	0.9	30	μA
		$V_R=650V, T_a=150^\circ C$	-	6	-	μA
		$V_R=650V, T_a=175^\circ C$	-	10	-	μA
Total capacitance	C	$V_R=1V, f=1MHz$	-	196	-	pF
Total capacitive charge	Q_C	$V_R=400V, di/dt=350A/\mu s$	-	19	-	nC
Switching time	t_c	$V_R=400V, di/dt=350A/\mu s$	-	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.
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