

**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

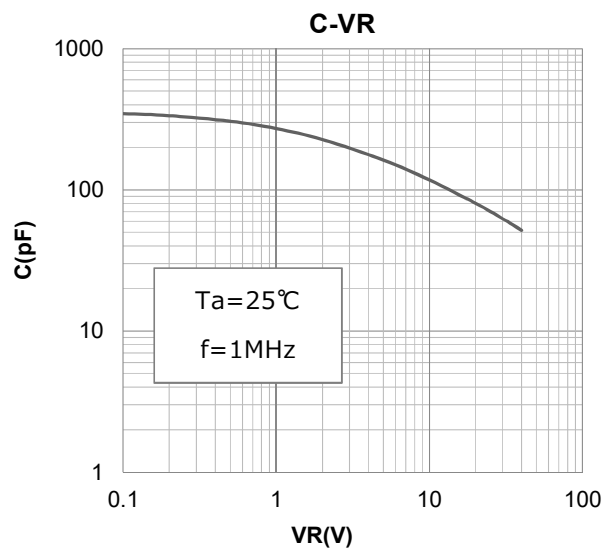
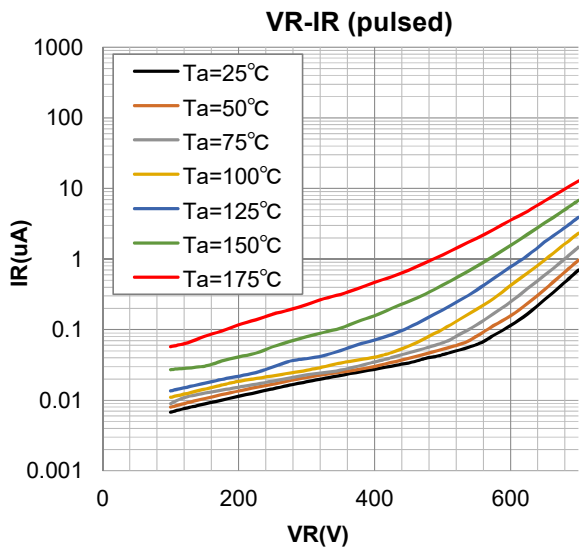
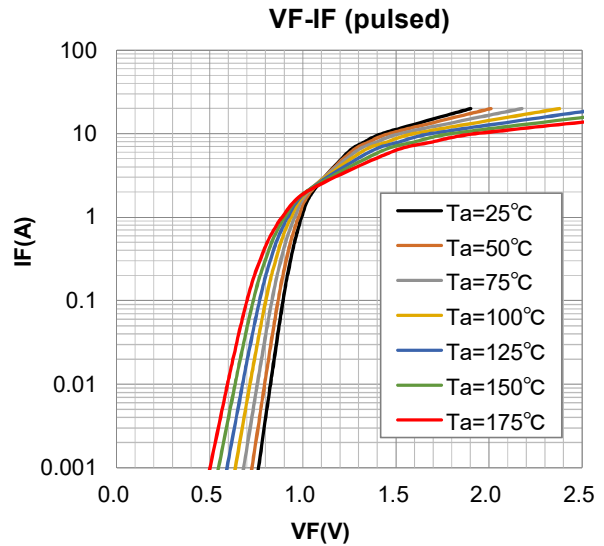
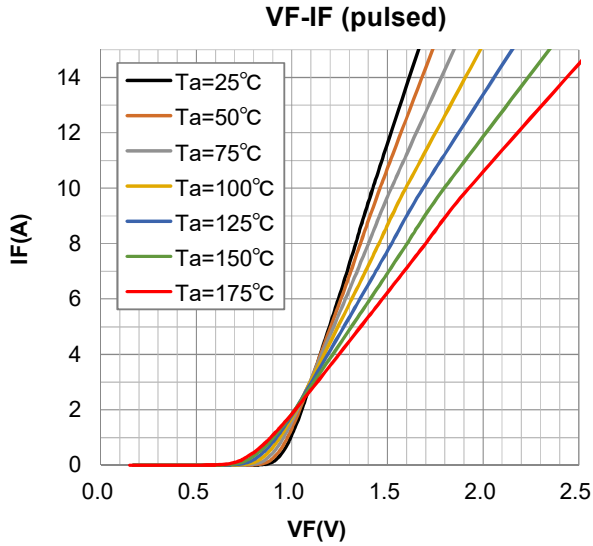
**Maximim Ratings (Ta=25°C)**

Parameter	Symbol	Conditions	Limit	Unit
Repetitive peak reverse voltage	$V_{RM}$		650	V
Reverse voltage (DC)	$V_R$		650	V
Forward current (DC)	$I_F$		8	A
Surge no repetitive forward current	$I_{FSM}$	10ms Sinusoidal	65	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	$V_{DC}$	$I_R=40\mu A$	650	-	-	V
Forward voltage	$V_F$	$I_F=8A, T_a=25^\circ C$	-	1.33	1.70	V
		$I_F=8A, T_a=150^\circ C$	-	1.60	-	V
		$I_F=8A, T_a=175^\circ C$	-	1.70	-	V
Reverse current	$I_R$	$V_R=650V, T_a=25^\circ C$	-	0.3	40	$\mu A$
		$V_R=650V, T_a=150^\circ C$	-	3	-	$\mu A$
		$V_R=650V, T_a=175^\circ C$	-	7	-	$\mu A$
Total capacitance	$C$	$V_R=1V, f=1MHz$	-	272	-	pF
Total capacitive charge	$Q_C$	$V_R=400V, di/dt=350A/us$	-	21	-	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.