



FC809

Silicon Barrier Diode

30V, 70mA Rectifier

Applications

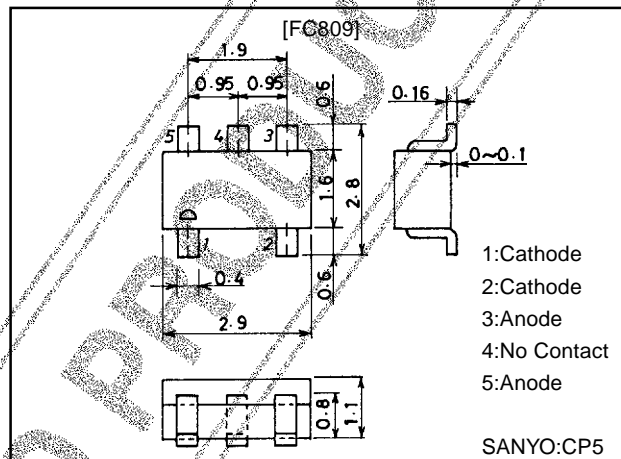
- General rectification applications.
- High frequency rectification (switching regulators, converters, choppers).

Features

- Low forward voltage (V_F max=0.55V) .
- Fast reverse recovery time (t_{rr} max=10ns) .
- Composite type with 2 diodes contained in the CP package currently in use, saving the mounting space greatly.
- The FC809 is formed with two chips, each being equivalent to the SB007-03CP, placed in one package.

Package Dimensions

unit:mm
1236A



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$ (Value per element)

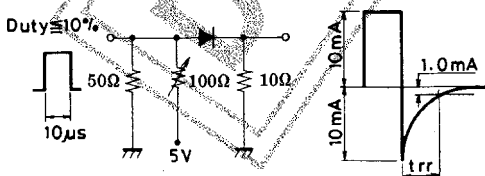
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		35	V
Average Output Current	I_O		70	mA
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	2	A
Junction Temperature	T_J		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$ (Value per element)

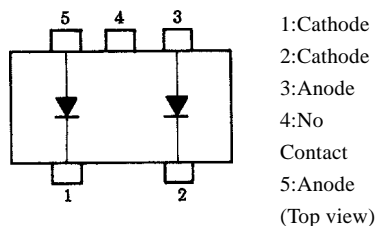
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=20\mu\text{A}$	30			V
Forward Voltage	V_F	$I_F=70\text{mA}$			0.55	V
Reverse Current	I_R	$V_R=15\text{V}$			5.0	μA
Interteminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		3.0		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$, See specified Test Circuit			10	ns
Thermal Resistance	$R_{th}(j-a)$			560		$^\circ\text{C/W}$

· Marking: 809

t_{rr} Test Circuit

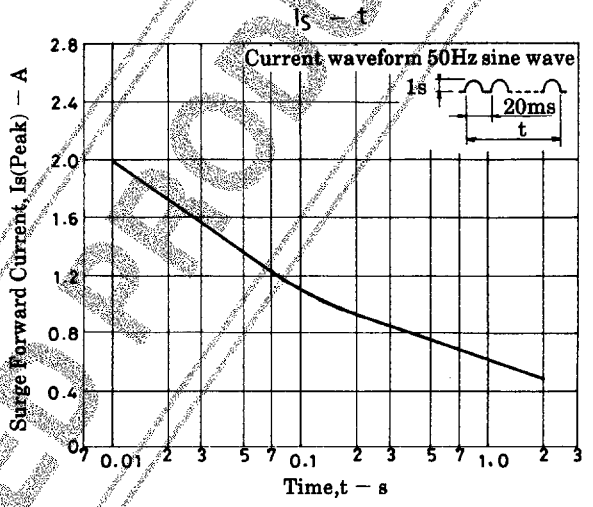
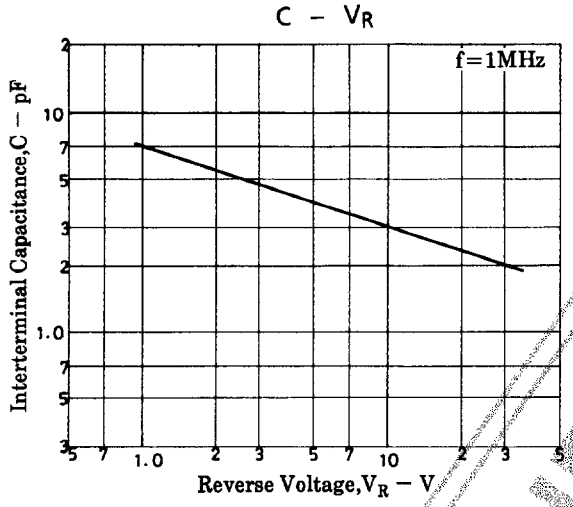
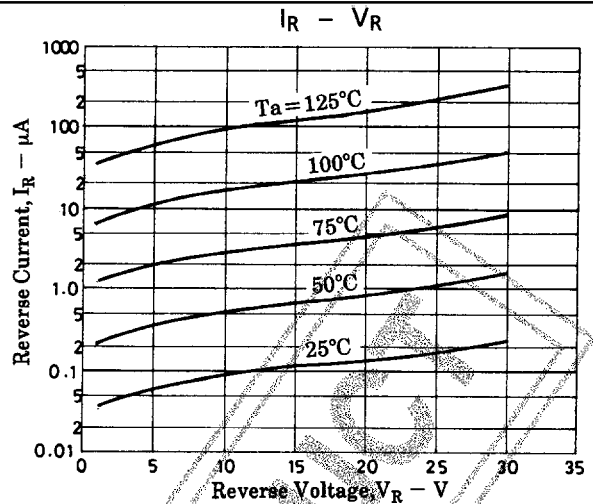
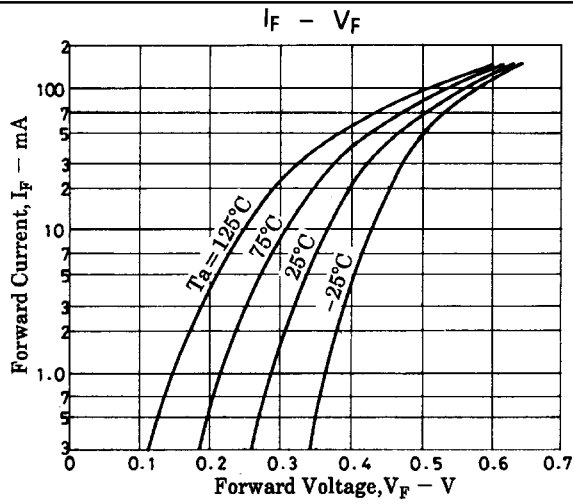


Electrical Connection



- 1: Cathode
 - 2: Cathode
 - 3: Anode
 - 4: No Contact
 - 5: Anode
- (Top view)

FC809



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