



SS1003M — Schottky Barrier Diode

30V, 1A Rectifier

Applications

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

Features

- Small Switching noise.
- Low forward voltage ($I_F=500\text{mA}$, $V_F \text{ max}=0.39\text{V}$) ($I_F=1\text{A}$, $V_F \text{ max}=0.45\text{V}$).
- Ultrasmall package permitting applied sets to be small and slim (mounting height 0.85mm).

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

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		1	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T_J		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=500\mu\text{A}$	30			V
Forward Voltage	V_{F1}	$I_F=500\text{mA}$			0.39	V
	V_{F2}	$I_F=1\text{A}$			0.45	V
Reverse Current	I_R	$V_R=15\text{V}$			360	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		27		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$	Mounted on a ceramic board (600mm \times 0.8mm)		138		$^\circ\text{C} / \text{W}$

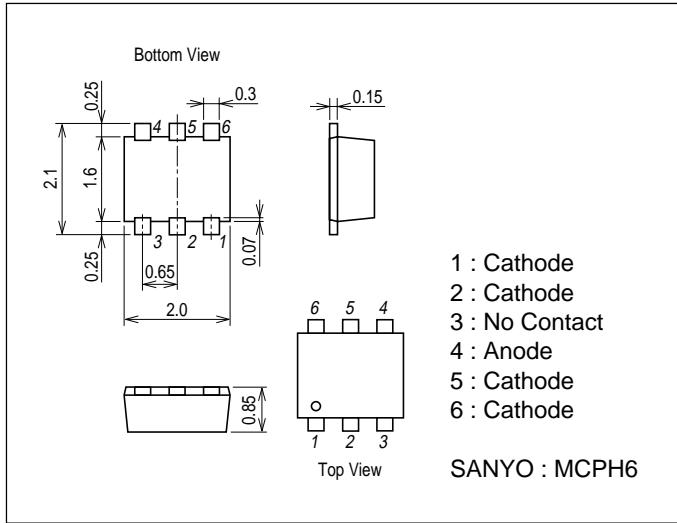
Marking : SC

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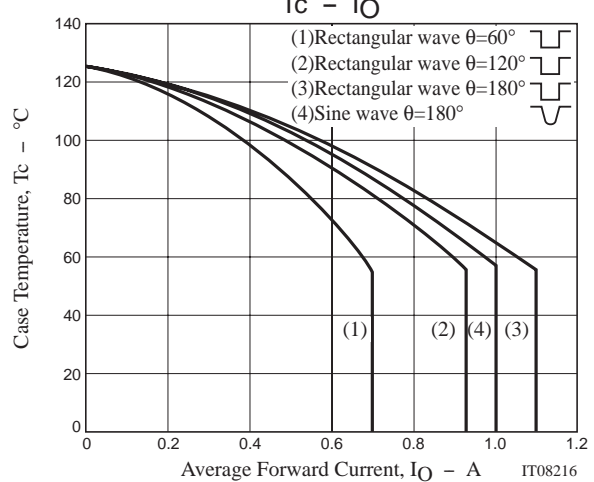
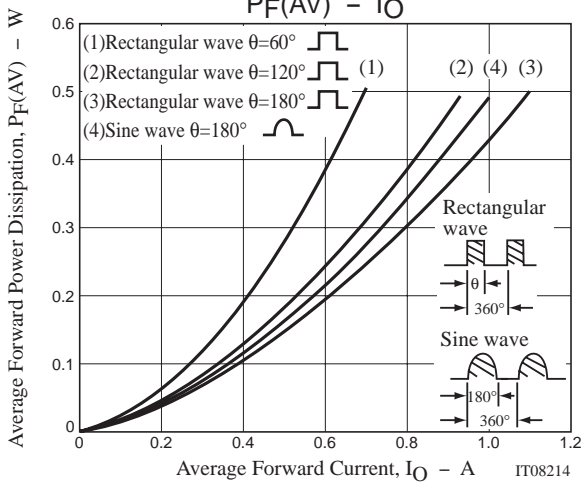
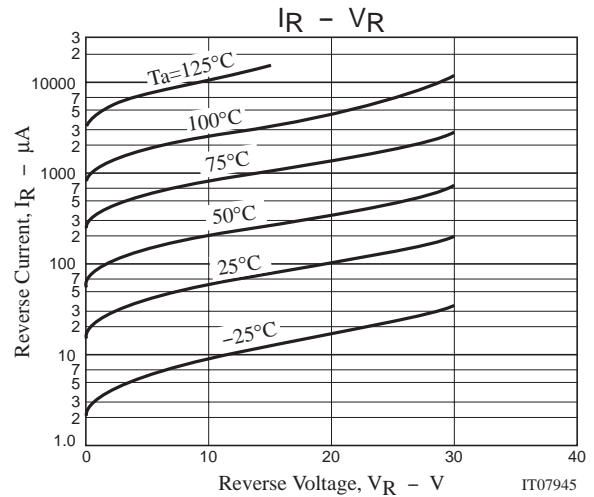
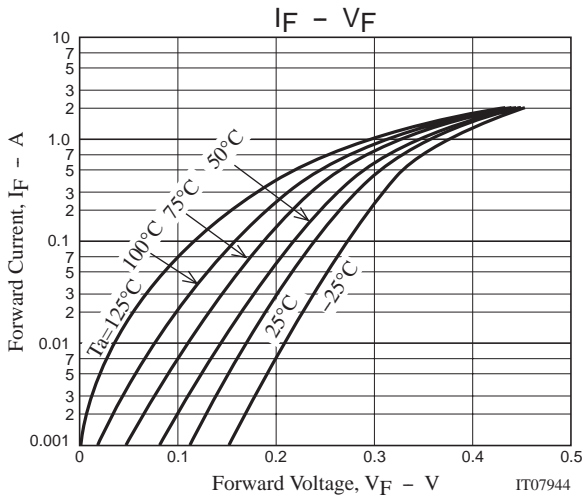
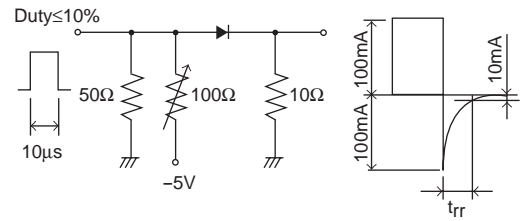
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Package Dimensions

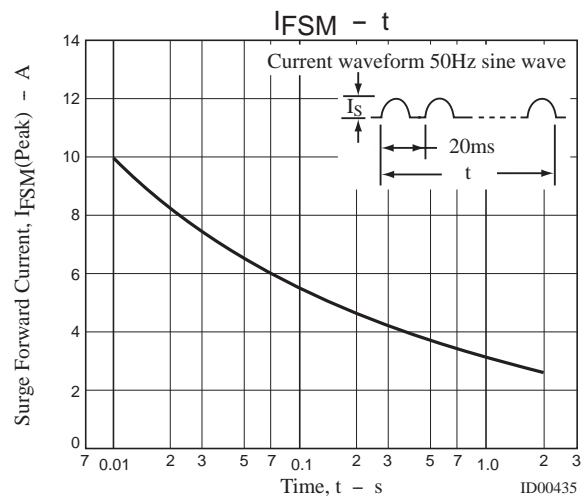
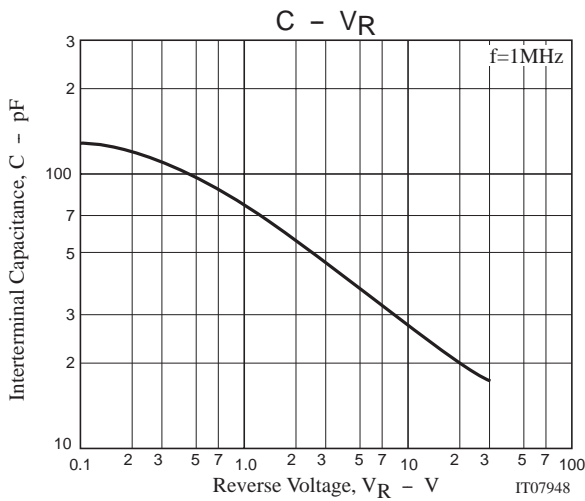
unit : mm
7022-005



t_{rr} Test Circuit



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