



SANYO Semiconductors

DATA SHEET

SBE818 — Low I_R Schottky Barrier Diode 30V, 2.0A Rectifier

Applications

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

Features

- Composite type device with 2 low I_R SBD shoused in one package, facilitating high density mounting.
- Small switching noise.
- Low forward voltage (I_F=2.0A, V_F max=0.62V).
- Low reverse current (V_R=15V, I_R max=7.5μA).
- Ultrasmall package permitting applied sets to be small and slim (Mounting height 0.75mm).

Specifications

Absolute Maximum Ratings at T_a=25°C (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V _{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V _{RSM}		30	V
Average Output Current	I _O	When mounted on ceramic substrate, Rectangular wave 180°C	2.0	A
		When mounted on glass epoxy substrate	1.5	A
Surge Forward Current	I _{FSM}	50Hz sine wave, 1 cycle	20	A
Junction Temperature	T _j		-55 to +125	°C
Storage Temperature	T _{stg}		-55 to +125	°C

Marking : SC

*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6).

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SBE818

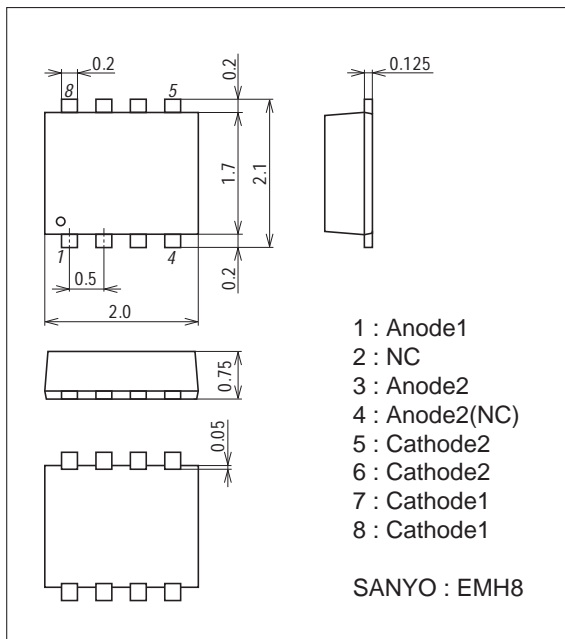
Electrical Characteristics at Ta=25°C (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1mA$	30			V
Forward Voltage	V_{F1}	$I_F=1.0A$		0.48	0.53	V
	V_{F2}	$I_F=1.5A$		0.53	0.58	V
	V_{F3}	$I_F=2.0A$		0.57	0.62	V
Reverse Current	I_R	$V_R=15V$			7.5	μA
Interterminal Capacitance	C	$V_R=10V, f=1MHz$		30		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100mA$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)1}$	When mounted in Cu-foiled area of 0.96mm ² ×0.03mm on glass epoxy substrate		100		°C / W
	$R_{th(j-a)2}$	When mounted on ceramic substrate (900mm ² ×0.8mm)		65		°C / W

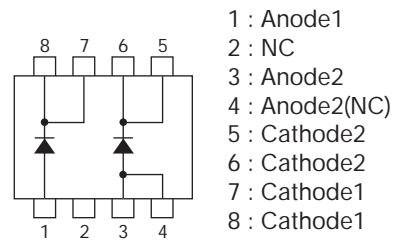
Package Dimensions

unit : mm (typ)

7045-004



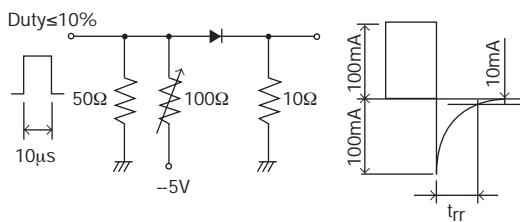
Electrical Connection

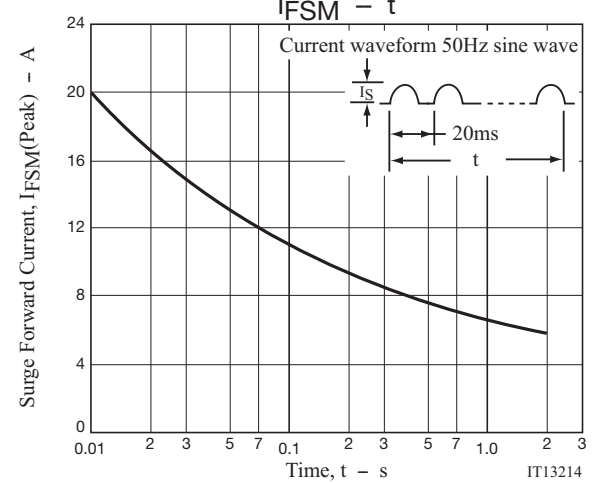
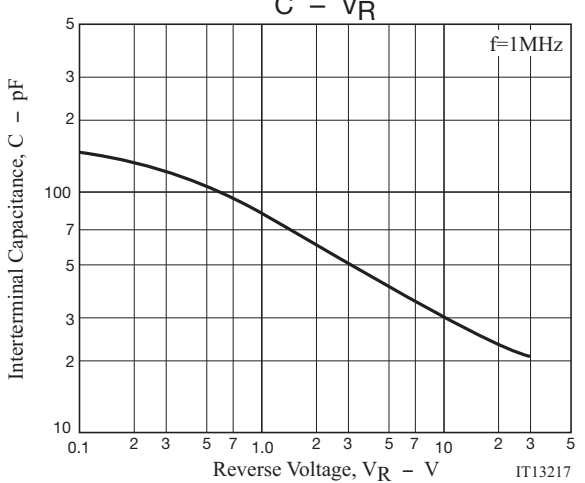
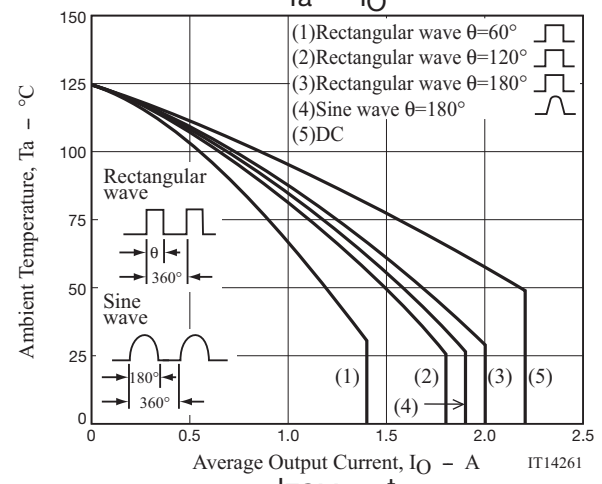
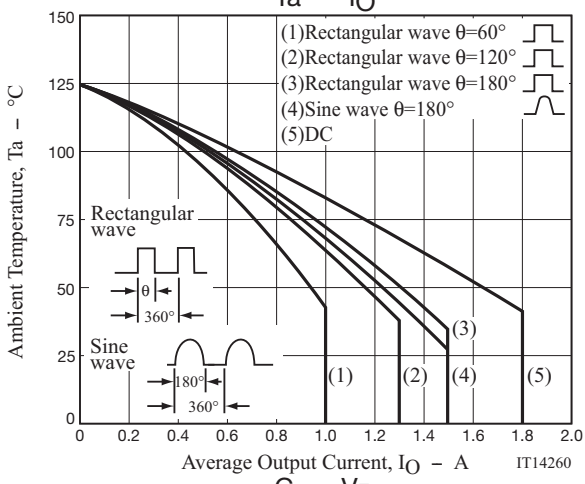
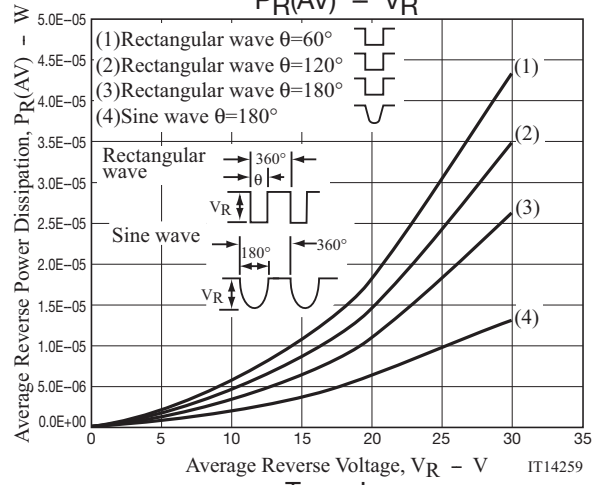
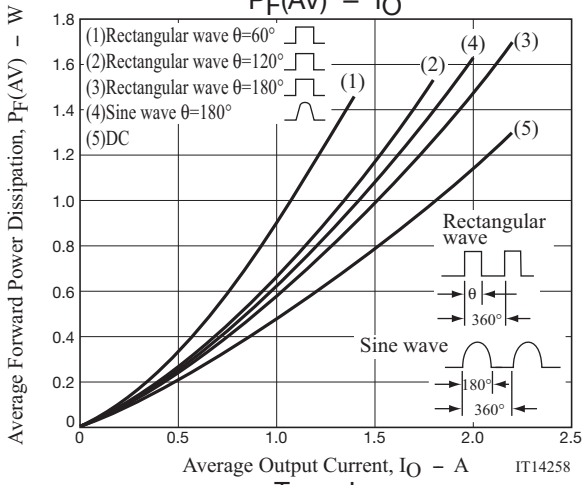
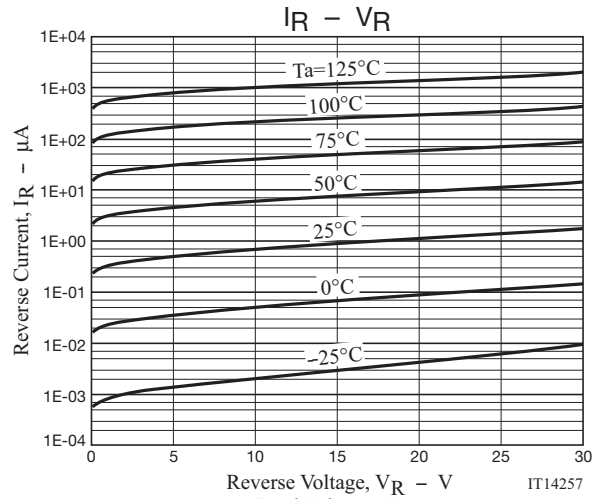
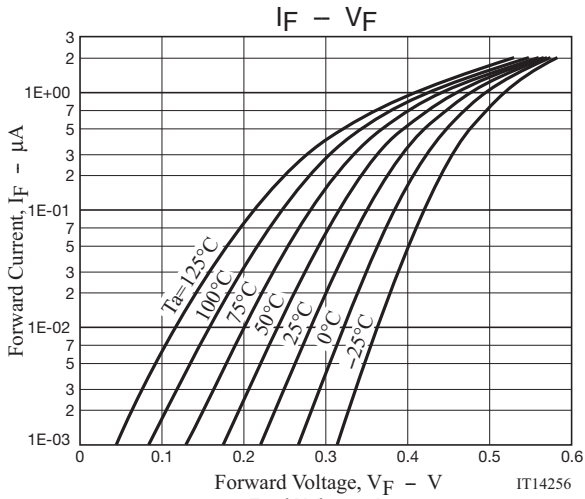


Top view

*: Terminal 4 is used for the purposes such as test. Although it is connected to Anode 2, please handle it as NC Terminal

t_{rr} Test Circuit





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