Ordering number : ENA1379A

SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

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 Ta=25°C (Value per element)

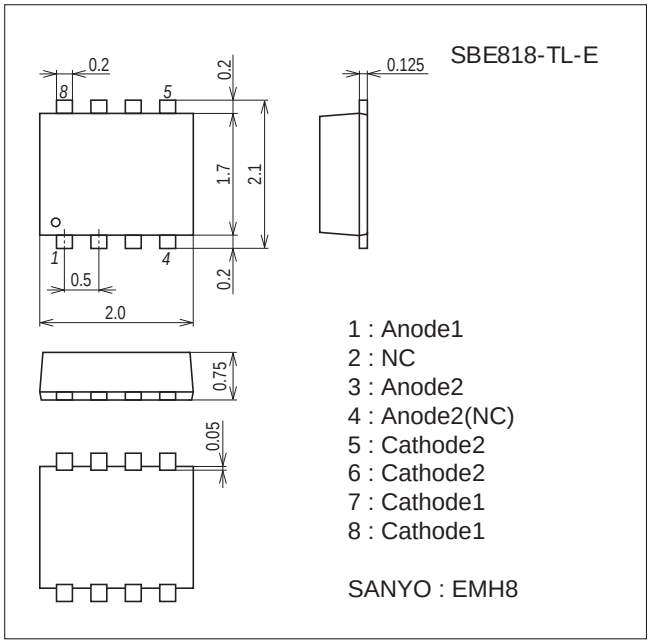
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		30	V
Average Output Current	I_O	When mounted on ceramic substrate, Rectangular wave 180℃	2.0	A
		When mounted on glass epoxy substrate	1.5	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	20	A
Junction Temperature	Tj		−55 to +125	℃
Storage Temperature	Tstg		−55 to +125	℃

*: 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)

Package Dimensions

unit : mm (typ)

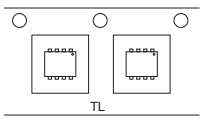
7045-004



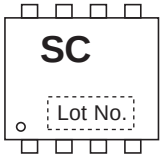
Product & Package Information

- Package : EMH8
- JEITA, JEDEC : -
- Minimum Packing Quantity : 3,000 pcs./reel

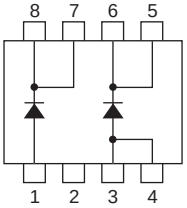
Packing Type : TL



Marking



Electrical Connection

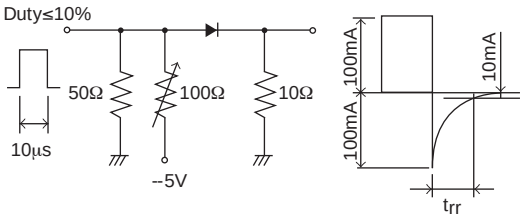


*: Terminal 4 is used for the purposes such as test. Although it is connected to Anode 2, please handle it as NC Terminal.

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	Rth(j-a)1	When mounted in Cu-foiled area of 0.96mm^2×0.03mm on glass epoxy substrate		100		℃ / W
	Rth(j-a)2	When mounted on ceramic substrate (900mm^2×0.8mm)		65		℃ / W

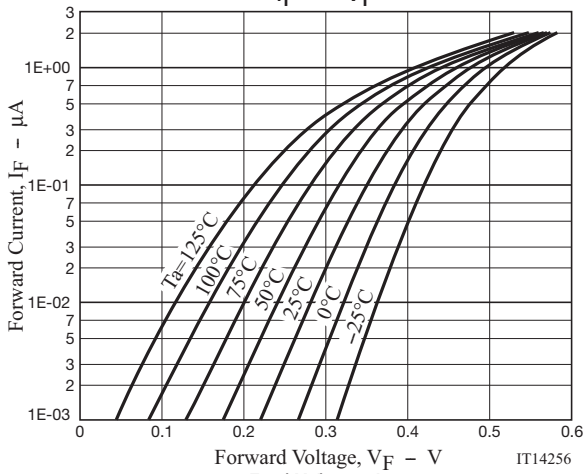
t_{rr} Test Circuit



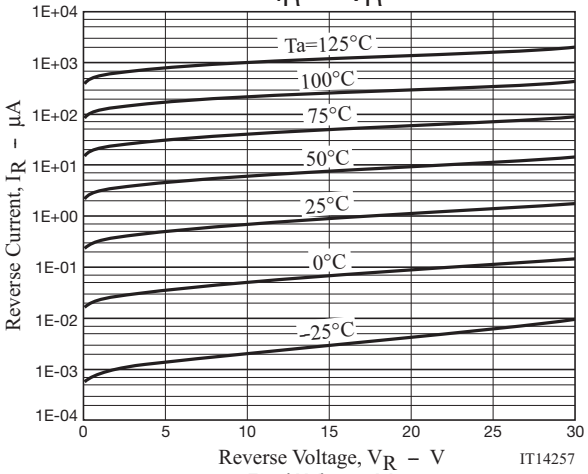
Ordering Information

Device	Package	Shipping	memo
SBE818-TL-E	EMH8	3,000pcs./reel	Pb Free

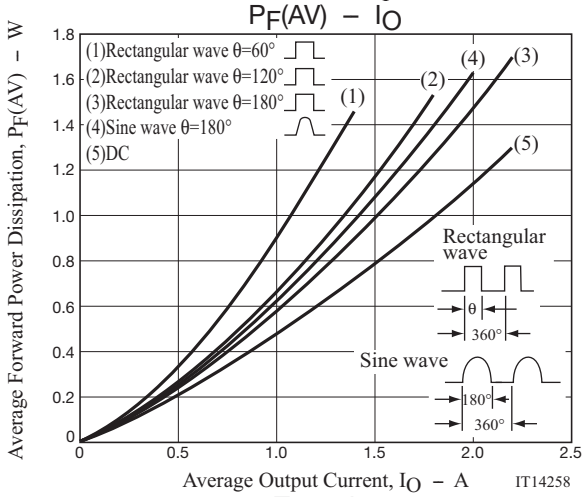
$I_F - V_F$



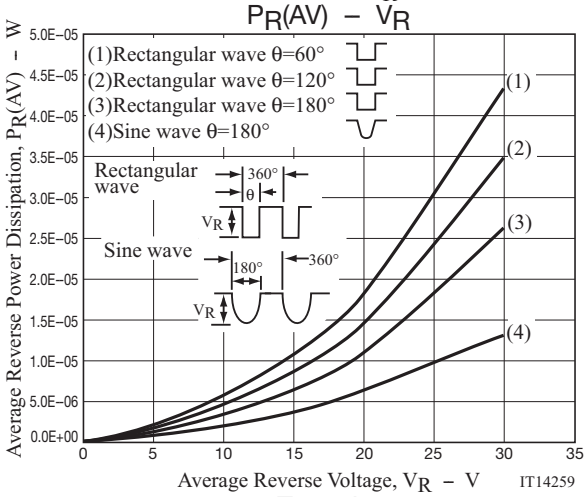
$I_R - V_R$



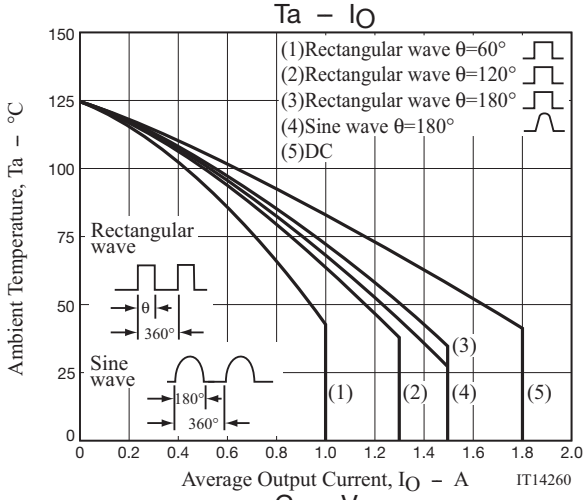
$P_{F(AV)} - I_O$



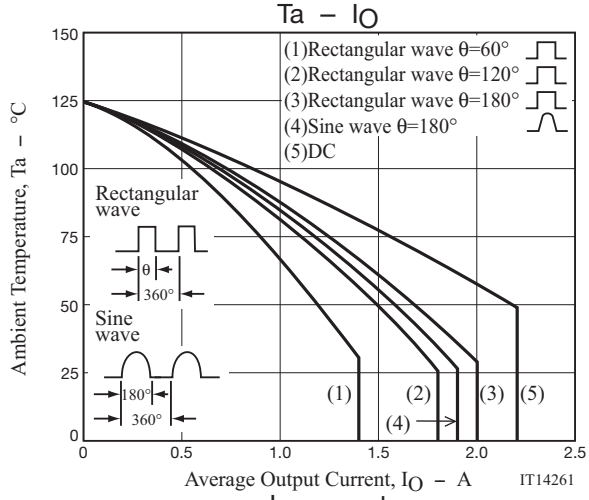
$P_{R(AV)} - V_R$



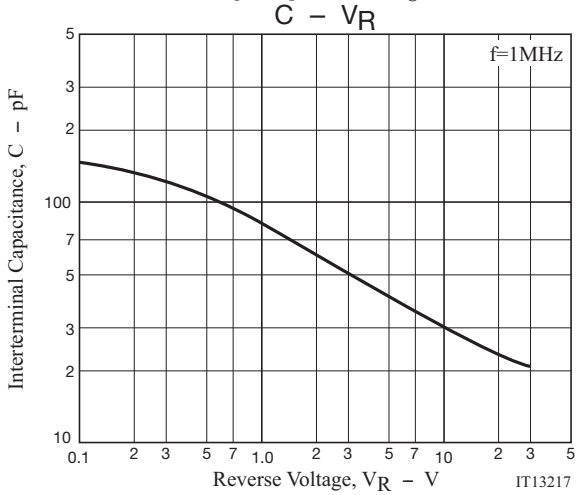
$Ta - I_O$



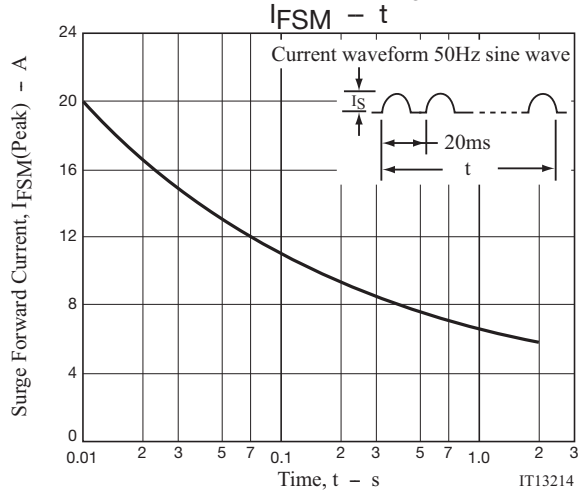
$Ta - I_O$



$C - V_R$



$I_{FSM} - t$



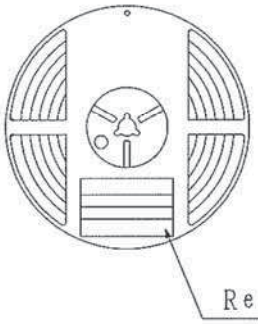
Embossed Taping Specification

SBE818-TL-E

1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
EMH8	MCP4	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

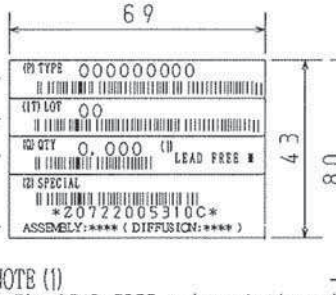
Packing method



Reel label

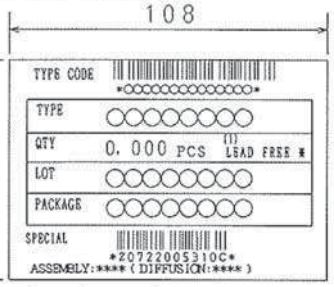
Reel label, Inner box label

(unit:mm)



Outer box label

It is a label at the time of factory shipments. The form of a label may change in physical distribution process.



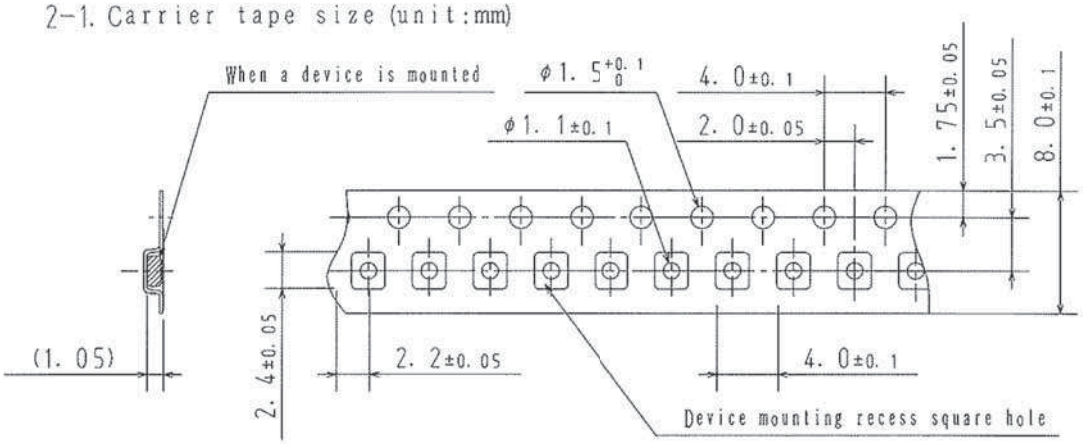
NOTE (1)

The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

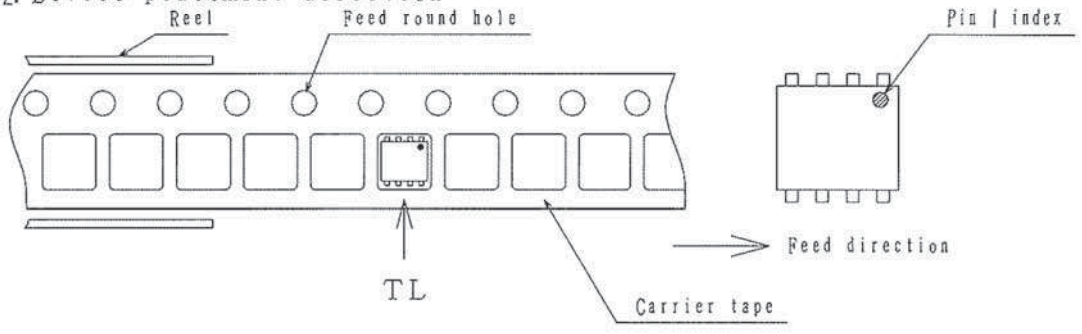
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



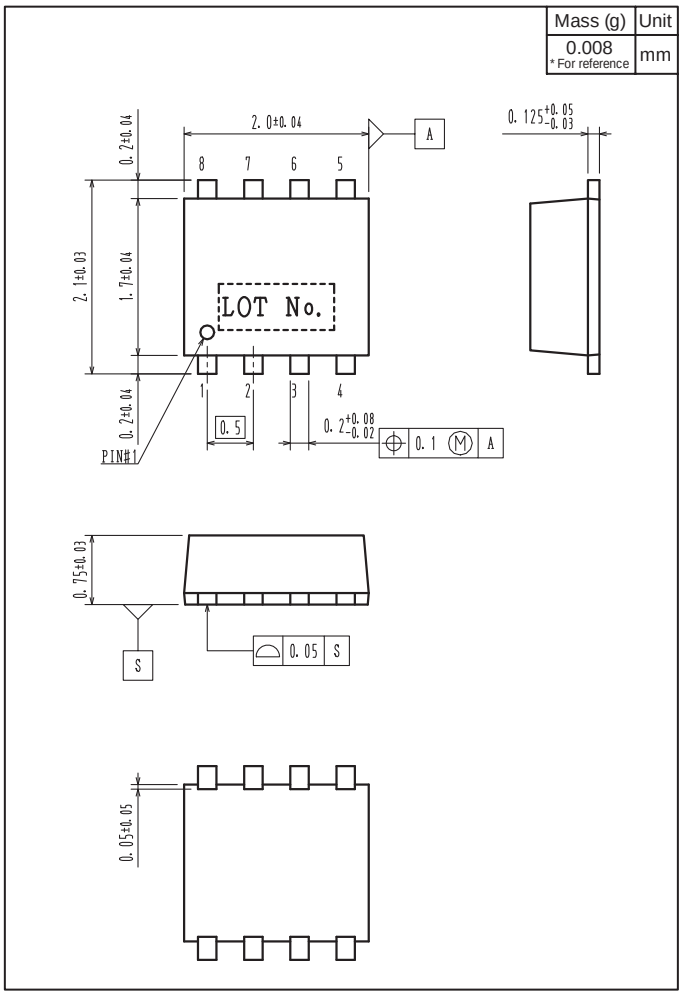
2-2. Device placement direction



Those with pin 1 index on the feed hole side·····TL

Outline Drawing

SBE818-TL-E



Land Pattern Example