Ordering number : ENA0734A

SBS817

Schottky Barrier Diode

15V, 2A, Low V_F, Non-Monolithic Dual EMH8 Common Cathode

ON Semiconductor®

http://onsemi.com

Applications

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

Features

- Low switching noise
- Low forward voltage (I_F=2.0A, V_F max=0.46V)
- 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)

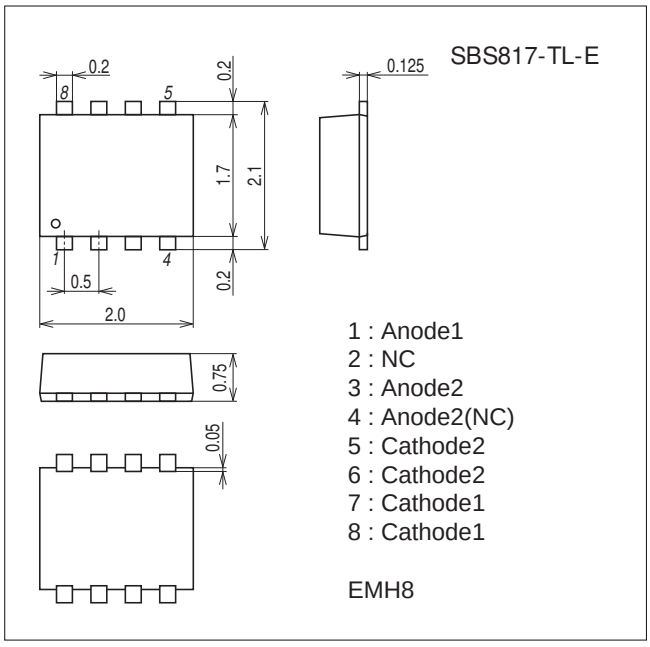
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		15	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		15	V
Average Output Current	I_O		2.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	20	A
Junction Temperature	Tj		−55 to +125	°C
Storage Temperature	Tstg		−55 to +125	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

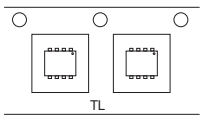
7045-004



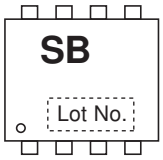
Product & Package Information

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

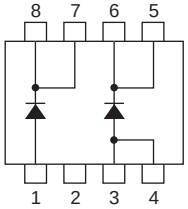
Packing Type : TL



Marking



Electrical Connection

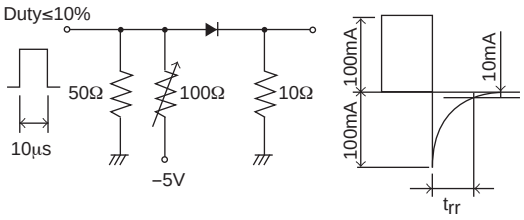


Electrical Characteristics at Ta=25°C (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=1mA	15			V
Forward Voltage	V_F1	I_F=1.0A		0.33	0.39	V
	V_F2	I_F=2.0A		0.39	0.46	V
Reverse Current	I_R	V_R=7.5V			300	μA
Interterminal Capacitance	C	V_R=10V, f-1MHz		35		pF
Reverse Recovery Time	t_{rr}	I_F=I_R=100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)	When mounted on ceramic substrate (900mm²×0.8mm)		65		°C / W

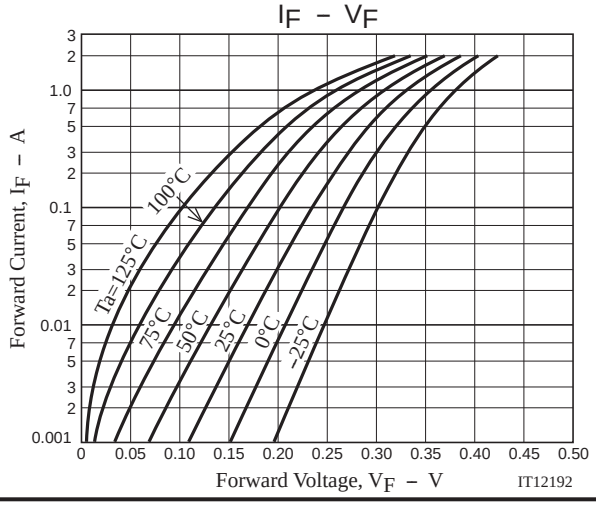
*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6).

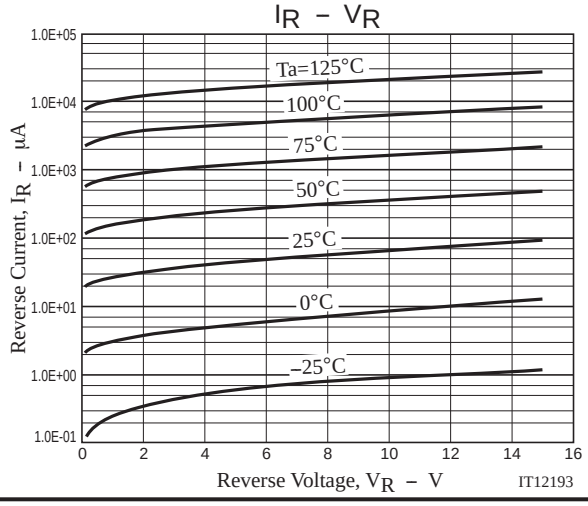
t_{rr} Test Circuit

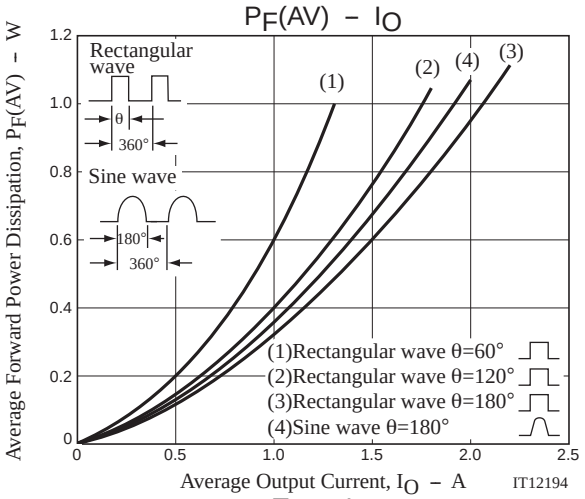


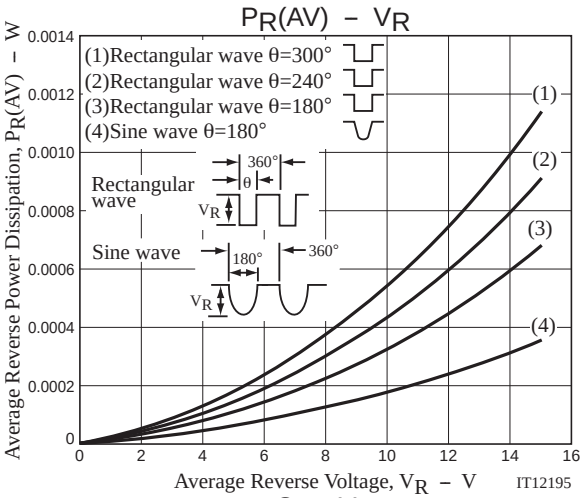
Ordering Information

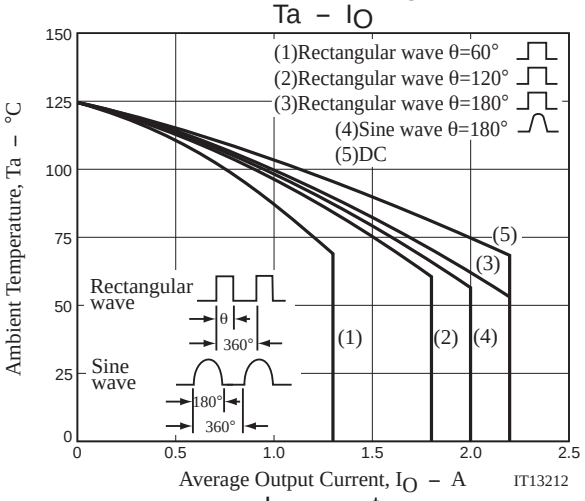
Device	Package	Shipping	memo
SBS817-TL-E	EMH8	3,000pcs./reel	Pb Free

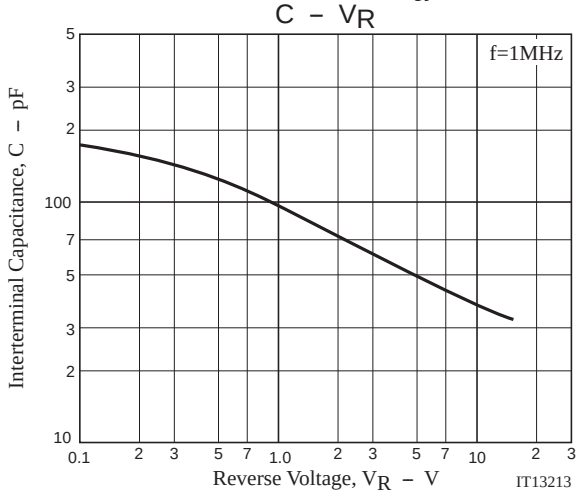


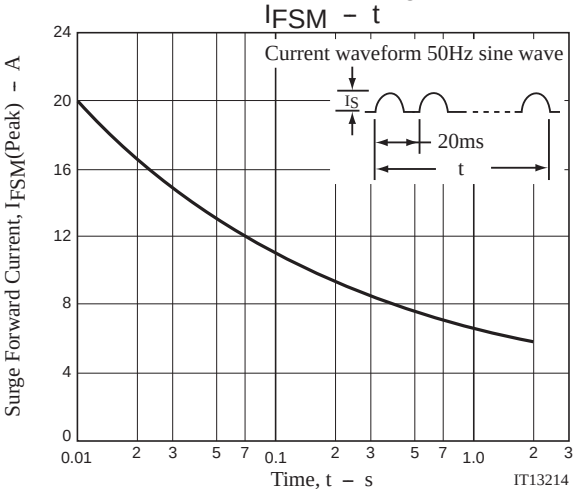



PF(AV) – IO
Average Forward Power Dissipation, PF(AV) – W
Average Output Current, IO – A
IT12194
Rectangular wave
θ
360°
Sine wave
180°
360°
(1)
(2)
(4)
(3)
(1)Rectangular wave θ=60°
(2)Rectangular wave θ=120°
(3)Rectangular wave θ=180°
(4)Sine wave θ=180°


PR(AV) – VR
Average Reverse Power Dissipation, PR(AV) – W
Average Reverse Voltage, VR – V
IT12195
(1)Rectangular wave θ=300°
(2)Rectangular wave θ=240°
(3)Rectangular wave θ=180°
(4)Sine wave θ=180°
Rectangular wave
Sine wave
360°
θ
VR
180°
(1)
(2)
(3)
(4)


Ta – IO
Ambient Temperature, Ta – °C
Average Output Current, IO – A
IT13212
(1)Rectangular wave θ=60°
(2)Rectangular wave θ=120°
(3)Rectangular wave θ=180°
(4)Sine wave θ=180°
(5)DC
Rectangular wave
Sine wave
θ
360°
180°
(1)
(2)
(4)
(3)
(5)


C – VR
Interterminal Capacitance, C – pF
Reverse Voltage, VR – V
IT13213
f=1MHz


IFSM – t
Surge Forward Current, IFSM(Peak) – A
Time, t – s
IT13214
Current waveform 50Hz sine wave
IS
20ms
t

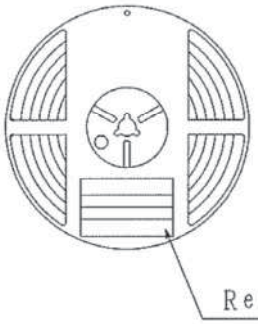
Embossed Taping Specification

SBS817-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

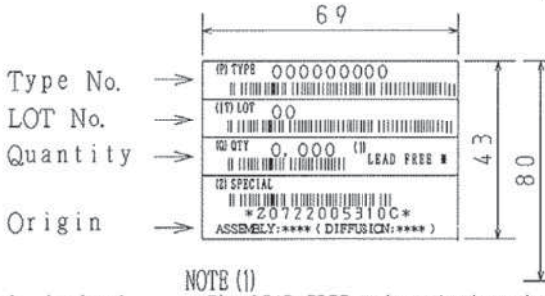
Packing method



Reel label

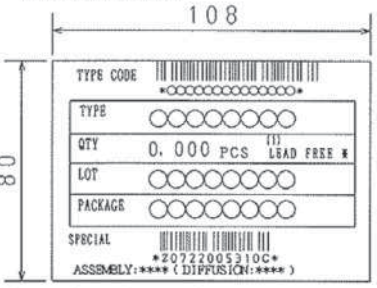
Reel label, Inner box label

(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.



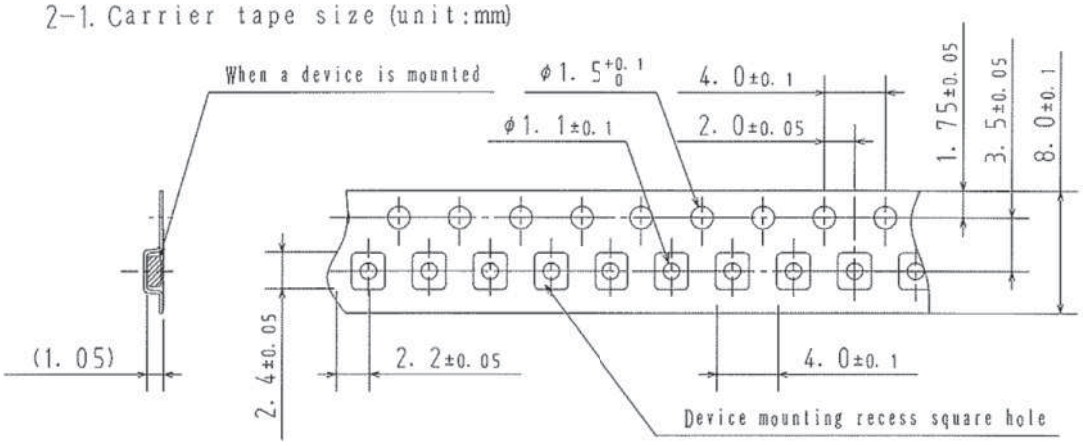
NOTE (1)

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

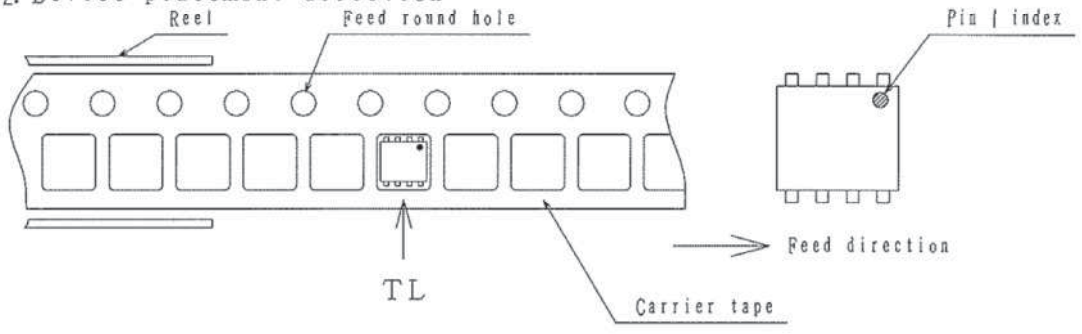
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



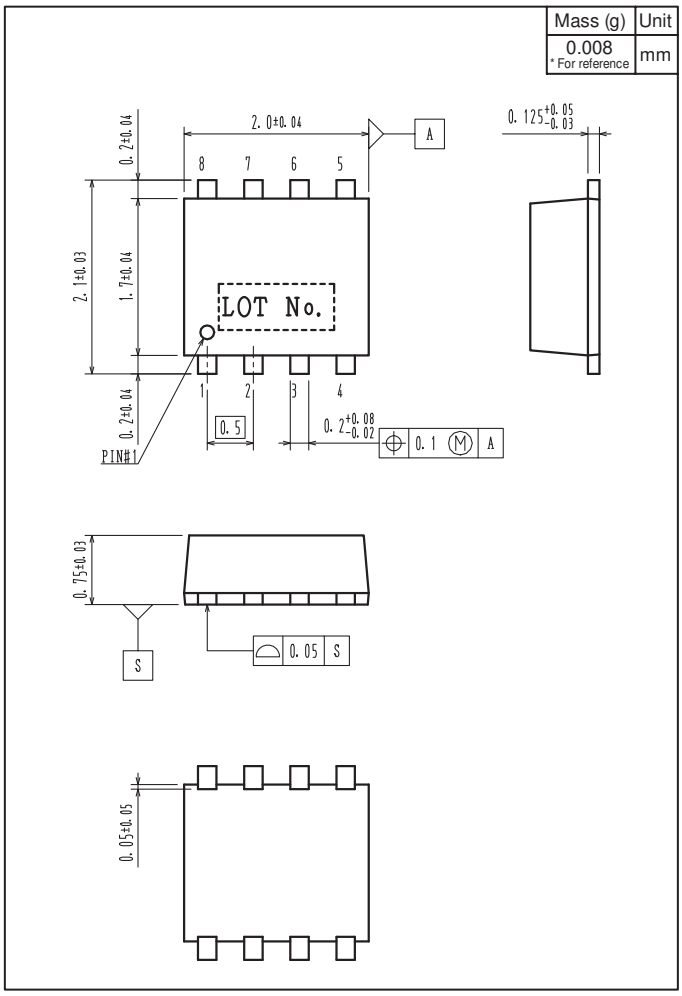
2-2. Device placement direction



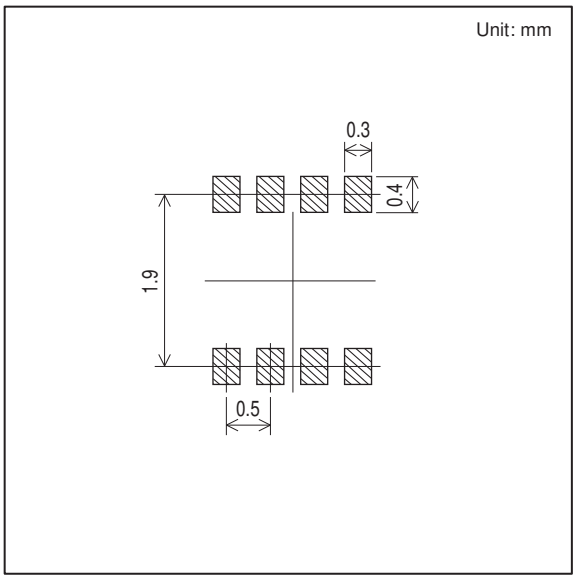
Those with pin 1 index on the feed hole side·····TL

Outline Drawing

SBS817-TL-E



Land Pattern Example



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