

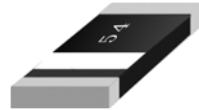
SINLOON® 肖特基貼片二極管
Chip Schottky Barrier Diode

CDB0230T
0603 30V 0.2A

FEATURE

- Low leakage current
- Surface mount pattern , available in various dimension 0603.
- Lead free and RoHS compliance components.
- Equivalent to BR520S-30, SOD523 package.

Figure



Cathode Band Color: white

MECHANICAL CHARACTERISTICS

- Size : 0603
- Weight: Approx 4.0mg.
- Marking: Bar as cathode terminal, 54 as schottky 200mA 30V



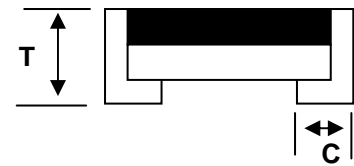
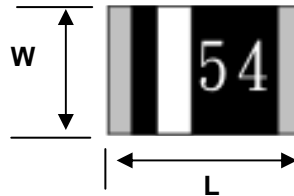
Electrical Symbol

Application

- For switching power supply
- Adapter
- Inverter

DIMENSION

Dimension (mm)	Type: 0603
L	1.55 ± 0.1
W	0.80 ± 0.1
T	0.65 ± 0.1
C	0.35 ± 0.2



THERMAL CHARACTERISTICS

Parameter at Tamb = 25°C *1	Symbol	Value	Unit
Junction Temperature	T _j	125	°C
Operating & Storage Temperature range	T _{stg}	-55 to 150	°C
Forward Power Dissipation	P _{tot}	200	mW
Power derating above 25°C.		10	mW/°C

*1. Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

Parameter at Tamb = 25°C	Symbol	Value	Unit
Maximum Reverse Voltage (DC)	V _R	30	V
Average rectified current sin half wave rectification with resistive load	I _{F(AV)}	200	mA
Non-Repetitive Surge Forward Current at t<1s and T _j =25°C;	I _{FSM}	1	A
Forward Voltage at I _F =200mA (Tamb=25°C ¹)	V _F	0.6	V
Forward Voltage at V _R =10V (Tamb=25°C ¹)	I _R	1	µA

1. Valid provided that electrodes are kept at ambient temperature.

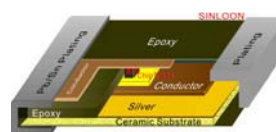
DEVICE OUTLOOK:

Plant front side

Plant back side



PRODUCT STRUCTURE



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TEST CHARACTERISTICS:

Test Item	Test Condition	Requirement
Solder ability	Sn bath at 245±5°C for 2±0.5s	>95% area tin covered
Resistance to Soldering Heat	Sn bath at 260±5°C for 10±0.5s	V _F , V _Z , & I _R Within spec, no mechanical damage
Humidity Steady State	At 85°C 85%RH for 168hrs	V _F , V _Z , & I _R Within spec
Continue Forward Operating Life	At 25°C I _F = 1.1 I _F for 1000hrs	V _F , V _Z , & I _R Within spec
Hi-Temperature Reverse Bias	At 150°C V _R = 0.8V _R rated for 1000hrs	V _F , V _Z , & I _R Within spec
Thermal Shock	-55±5°C/5min to 150±5°C/5min for 10cycles	V _F , V _Z , & I _R Within spec
Bending Strength	Bending up to 2mm for 1 cycle	V _F , V _Z , & I _R Within spec, no mechanical damage

APPLICATIONS:

- Function: Low current rectifying
- Soldering Condition:

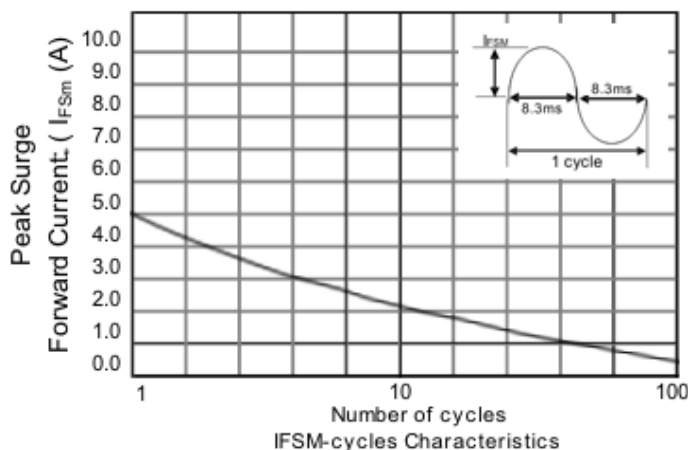
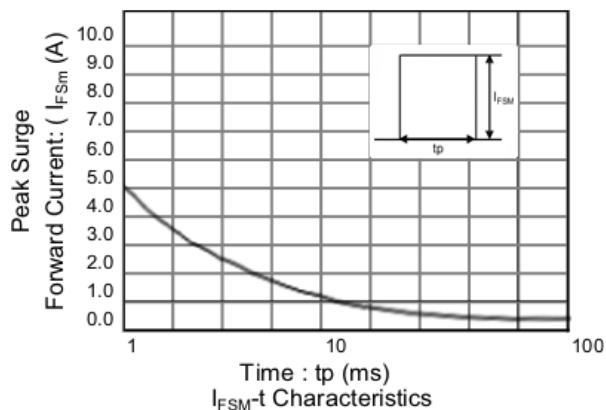
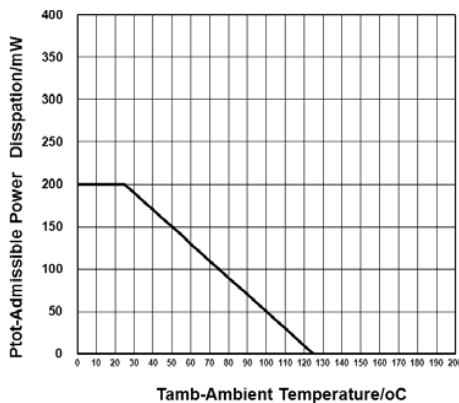
Soldering Condition & Caution:

- Recommended Soldering Condition (Refer to IPC/JEDEC J-STD-020D 4-1&5.2)

Recommended Profile Condition	Sn-Pb Soldering	Lead-free Soldering	Wave Soldering
Ramp-up rate (from pre-heat stage)	<3°C/s	<3°C/s	ΔT<150°C
Pre-heat Temperature & Time	100-150°C, 60~120s	150-200°C, 60~120s	100-150°C, 60~120s
Soldering Temperature & Time	183°C, 60~150s	217°C, 60~150s	260±5°C, 5±2s
Peak Temperature	230±5°C, <260°C	245±5°C, <260°C	260±5°C
Time within 5°C of peak temperature	10~20s	20~30s	-
Ramp-down rate	<6°C/s	<6°C/s	<6°C/s
Time 25°C to peak temperature	<6min	<8min	-

Manual Soldering: Approx. 350°C for 3s, avoid solder iron tip direct touch the components body.

TYPICAL CHARACTERISTICS (at Tamb=25°C)



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RECOMMENDED SOLDERING PROFILE:

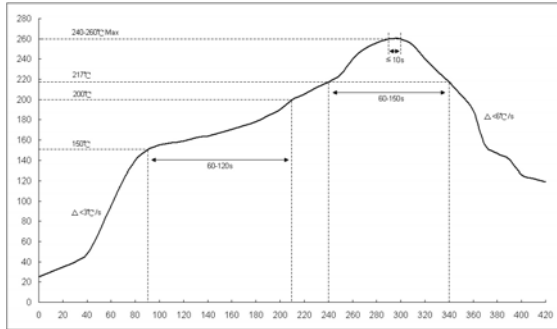


Fig 1: Reflow soldering profile for lead-free solder (SnAgCu)

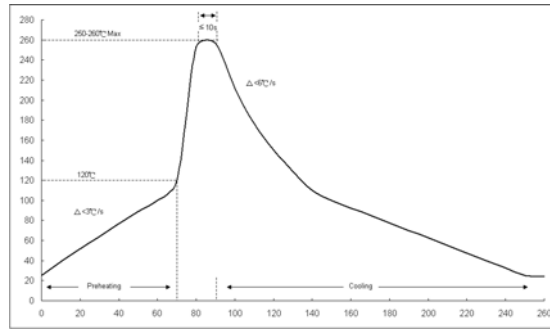
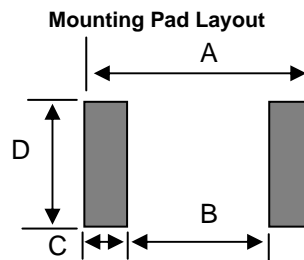


Fig 2: Wave soldering profile.

RECOMMENDED SOLDERING FOOTPRINT

Reflow/Wave Soldering:

Size:	Dimension (mm)			
	A	B	C	D
CDB0230T	1.8~2.6	0.8	0.5~0.9	0.8~1.0



- Storage Condition:** Product termination solderability can degrade due high temperature and humidity or chemical environment, Storage condition must be in an ambient temperature of <40°C and ambient humidity of <75%RH, and free from chemical.

ENVIRONMENTAL CHARACTERISTICS

Product	Hazardous Substance or Element / ppm					
	Pd	Cd	Hg	Cr ⁶⁺	PBB	PBDE
CDB0230T	<1000	<100	<1000	<1000	<1000	<1000

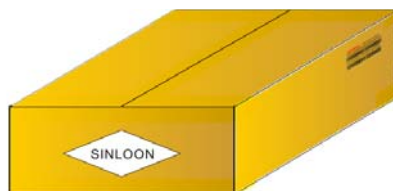
Product	Halogen Substance / ppm					
	F	Cl	Br	I	-	Total
	<900	<900	<900	<900	-	<1500

PACKING METHOD:

Product	Quantity / Reel	Reel Size	Tape	Approx Gross Weigh
CDB0230T	5000	7"	Paper	10.5 Kgs/300K Ctn

Carton:

- Size: 39x39x20 cm
- Quantity: 300K / Ctn.
- In Box: 6 Box
- Box Qty: 50K/Box
- Type Reel: 5K/Reel

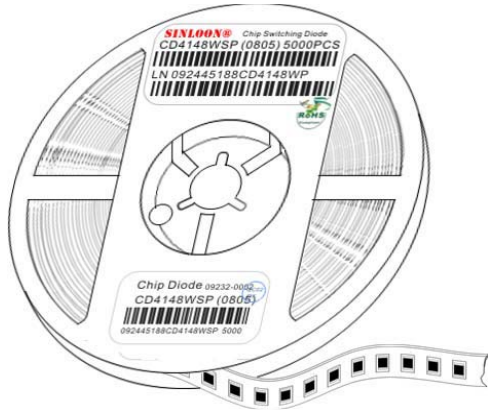


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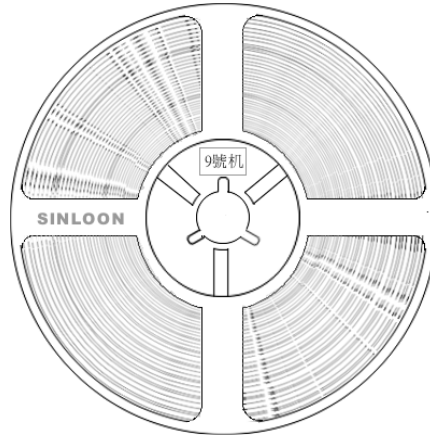
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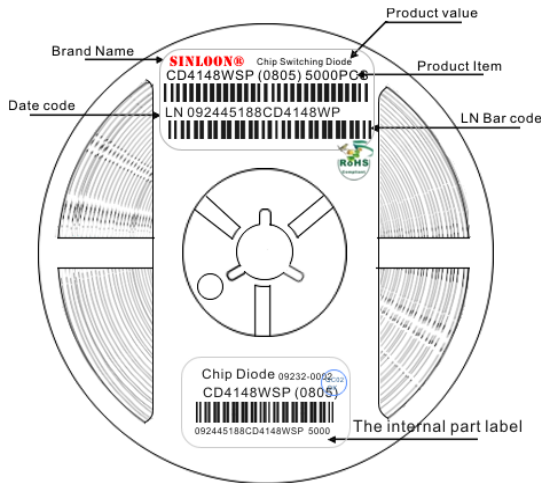
□ PACKAGE



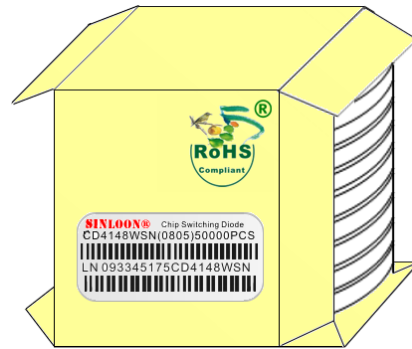
Plastic reel front side



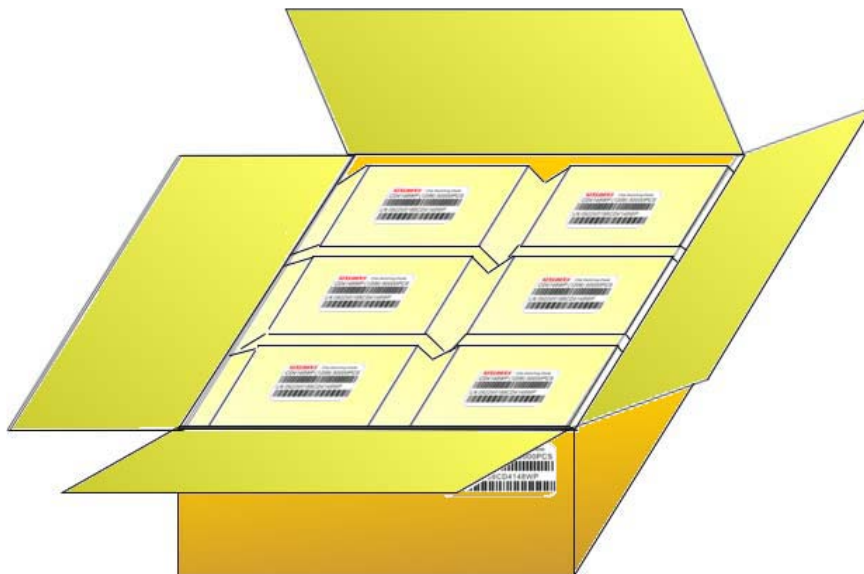
Plastic reel back side



Reel label



Inner box packing



※美隆電子產品規格特性參數的改變或更新,將不會另行通知。
※Mayloon characteristic parameters of electronic product specification changes or updates without prior notice。



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