

SEA & LAND ELECTRONIC CORP.

www.sealand-pptc.com

ALPHA-TOP TECHNOLOGY CORP.



APPROVAL SHEET

MODEL NO.:	SMD0805-075-8V
CUSTOMER:	
CUSTOMER'S APPRO	VAL:
AUTHORIZED SIGNAT	URE/STAMP:
DATE	
_	CUSTOMER: CUSTOMER'S APPRO

MANUFACTURER:

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Submitted by: Chen
Approved by: YC Lin
DATE: 1-Jun-22

SEA & LAND ELECTRONIC CORP.



SMD0805-075-8V

Features

- Surface Mount Devices
- Lead free device
- Size 2.0*1.2 mm / 0.08*0.05 inch
- Surface Mount packaging for automated assembly

Applications

Almost anywhere there is a low voltage power supply, up to 15V and a load to be

protected, including:

- Computer mother board, Modem. USB hub
- PDAs & Charger, Analog & digital line card
- Digital cameras, Disk drivers, CD-ROMs,

Alpha-Top (Sea & Land Alliance)

Performance Specification

Model	Marking	$V_{\rm max}$	I _{max}	I _{hold}	$I_{\rm trip}$	P_d	Maximum Time To Trip		Resistance A		Agency	Agency Approval	
Wodei	Marking			@25°C	@25°C	Тур.	Current	Time	Ri_{min}	R1max	UL	TUV	
		(Vdc)	(A)	(A)	(A)	(W)	(A)	(Sec)	(Ω)	(Ω)			
SMD0805-075-8V	7	8	100	0.75	1.50	0.6	8.0	0.20	0.090	0.385			

Ihold = Hold Current. Maximum current device will not trip in 25°C still air.

Itrip = Trip Current. Minimum current at which the device will always trip in 25°C still air.

Vmax = Maximum operating voltage device can withstand without damage at rated current (Imax).

Imax = Maximum fault current device can withstand without damage at rated voltage (Vmax).

Pd = Power dissipation when device is in the tripped state in 25°C still air environment at rated voltage.

Rimin/max = Minimum/Maximum device resistance prior to tripping at 25°C.

R1_{max} = Maximum device resistance is measured one hour post reflow.

CAUTION: Operation beyond the specified ratings may result in damage and possible arcing and flame.

Environmental Specifications

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Test	Conditions				
Passive aging	+85°C, 1000 hrs.				
Humidity aging	+85°C, 85% R.H., 168 hours				
Thermal shock	+85°C to -40°C, 20 times				
Resistance to solvent	MIL-STD-202,Method 215				
Vibration	MIL-STD-202,Method 201				
Ambient operating conditions : - 40 °C to +85 °C					
Maximum surface temperature of the device in the tripped state is 125 °C					
In case of special use, please contact our engineer	er				

Agency Approvals :

Regulation/Standard:

Phs RoHS

2015/863/EU

HF

EN14582

I_{hold} Versus Temperature

iloiu I									
Model	Maximum ambient operating temperature (T _{mao}) vs. hold current (I _{hold})								
Model	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD0805-075-8V	1.00	0.90	0.79	0.75	0.63	0.57	0.53	0.41	0.34



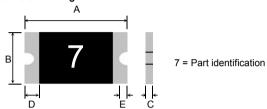
SMD0805-075-8V

Alpha-Top (Sea & Land Alliance)

Construction And Dimension (Unit:mm)

Model	Į.	Α		В		С		E
Wodei	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD0805-075-8V	1.90	2.20	1.20	1.50	0.50	1.20	0.20	0.10

Dimensions & Marking



Recommended Pad Layout (mm)

1.0±0.1

1.0±0.1

1.0±0.1

1.0±0.1

1.0±0.1

Termination Pad Characteristics

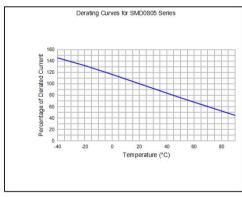
Terminal pad materials: Tin-plated Nickel-Copper

Terminal pad solderability: Meets EIA specification RS186-9E and ANSI/J-STD-002 Category 3.

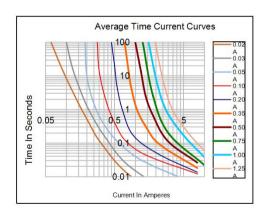
Rework

Use standard industry practices, the removal device must be replaced with a fresh one.

Thermal Derating Curve



Typical Time-To-Trip At 25°C



NARNING:

- · Use PPTC beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- PPTC are intended for protection against occasional over current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.
- · Use PPTC with a large inductance in circuit will generate a circuit voltage (L di/dt) above the rated voltage of the PPTC.
- · Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.
- Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices. PPTC SMD can be cleaned by standard methods.
- · Requests that customers comply with our recommended solder pad layouts and recommended reflow profile. Improper board layouts or reflow profile could negatively impact solderability performance of our devices.



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Recommended Solder Reflow Conditions

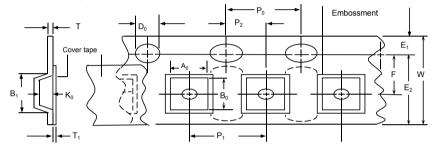


- Recommended reflow methods: IR, vapor phase oven, hot air oven.
- Devices are not designed to be wave soldered to the bottom side
- of the board
- Recommended maximum paste thickness is 0.25 mm (0.010 inch).
- Devices can be cleaned using standard method and solvents.
- Note: If reflow temperatures exceed the recommended profile,
 - devices may not meet the performance requirements.

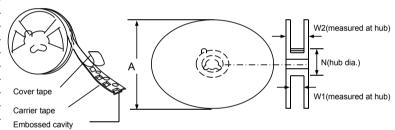
Tape And Reel Specifications (mm)

Governing Specifications	EIA 481-1
W	8.0 ± 0.3
P0	4.0 ± 0.10
P1	4.0 ± 0.10
P2	2.0 ± 0.05
A0	1.45 ± 0.10
B0	2.30 ± 0.10
B1max.	4.35
D0	1.55 + 0.1, -0
F	3.5 ± 0.05
<u>E1</u>	1.75 ± 0.10
E2min.	6.25
T	0.25
T1max.	0.1
K0	0.74 ± 0.1
Leader min.	390
Trailer min.	160
Reel Dimensions	
A max.	178
N min.	60
W1	9.0 ± 0.5
W2	12.0 ± 0.05

EIA Tape Component Dimensions



EIA Reel Dimensions



Storage And Handling

- Storage conditions : 40°C max, 70% R.H.
- Devices may not meet specified performance if storage conditions are exceeded.

Order Information Packaging

SMD0805	075-8V	Tape & Reel Quantity
Product name	Hold	
Size 2012 mm / 0805 inch	Current	4,000 pcs/reel
SMD: surface mount device	0.75A	

Tape & reel packaging per EIA481-1

Labeling Information

