

MSM300

Surface-Mount Low Resistance PTC Device
Rev Letter: A/0
Rev Date: 2018-1-5



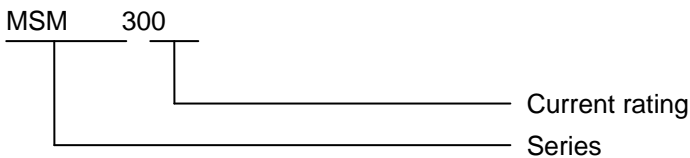
Feature

- Resettable overcurrent protection
- ROHS compliant
- Small size of 0805
- Fast time-to-trip
- Small footprint
- Low resistance

Application

- Computer
- Battery
- Mobile phones
- Industrial controls
- Automotive
- Portable electronics
- Multimedia
- Game machines
- Telephony and broadband

Part Number



Typical Ratings and Characteristics

- Maximum Operating Voltage: 6Vdc
- Maximum Interrupt Current: 50A

HOLD CURRENT & TRIP CURRENT (AMPS)		TIME-TO-TRIP (SECONDS)	MINIMUM RESISTANCE (OHMS)	ONE HOUR POST REFLOW RESISTANCE (OHMS)	TRIPPED STATE POWER DISSIPATION (WATTS)
25°C		25°C, 15.0A	25°C	25°C	25°C, 6V
HOLD	TRIP	MAX	MIN	MAX	MAX
3.0	8.0	5.0	0.003	0.035	1.2

Thermal Derating [Hold Current (A) at Ambient Temperature(°C)]

	Maximum Ambient Temperature									
	-40°C	-20°C	0°C	20°C	25°C	40°C	50°C	60°C	70°C	85°C
I _{Hold}	4.1	3.8	3.4	3.2	3.0	2.2	1.9	1.6	1.2	1.0
I _{Trip}	9.6	9.2	8.8	8.4	8.0	5.0	4.2	3.8	3.3	2.5

Product Dimension and Foot Print

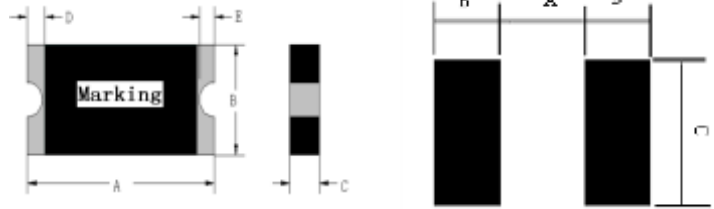
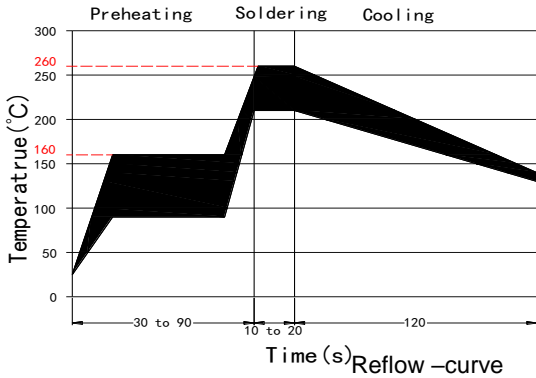
Part number	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
	Max.	Max.	Max.	Min.	Min.
MSM300	2.30	1.50	1.1	0.20	0.10

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Solder Reflow Recommendation



Footprint(mm)

- * Recommended reflow methods: IR, Vapor phase oven, hot air oven, nitrogen oven.
- * Devices can be cleaned using standard industry methods and solvents.

Note:

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Caution: Operation beyond the rated voltage or current may result in rupture electrical arcing or flame

Packaging and Marking Information

Part number	Tape & Reel Quantity	Tape spec code	Recommended Pad Layout Figures[mm(In.)]		
			Dimension A(Nom.)	Dimension B(Nom.)	Dimension C(Nom.)
MSM300	4000	U	1.20(0.051)	1.00(0.041)	1.50(0.061)



WARNING:

- Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- The devices are intended for protection against occasional overcurrent or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal and mechanical procedures for electronic components.

Prepare	Approval	Accept