Polymer PTC Devices

CYG Wayon Circuit Protection Co., Ltd.
No.1001, Shiwan Qi Road, Shanghai 201207, China
Tel: 86-21-50968308
Fax: 86-21-50968310
E-mail: market@way-on.com Http://www.way-on.com

## LP-MSM075/33

## Features

- Small size of 1812
$\square \quad$ Normal working temperature with $-40^{\circ} \mathrm{C} \sim 85^{\circ} \mathrm{C}$
$\square \quad$ Lead-free and compliant with the European Union RoHS Directive 2011/65/EU
$\square \quad$ Fast tripping resettable circuit protection
$\square \quad$ Surface mount packaging for automated assembly
-fREE
Product Dimensions (mm)

| Part number | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Max. | Max. | Min. | Min. |
| LP-MSM075/33 | 4.73 | 3.41 | 1.30 | 0.30 | 0.30 |



## Electrical Characteristics

| Part number | $\mathbf{I}_{\mathbf{H}}$ | $\mathbf{I}_{\mathbf{T}}$ | $\mathbf{V}_{\text {max }}$ | $\mathbf{I}_{\text {max }}$ | $\mathbf{T}_{\text {trip }}$ |  | $\mathbf{P d}_{\text {typ }}$ | $\mathbf{R}_{\text {min }}$ | $\mathbf{R}_{1 \text { max }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(\mathbf{A})$ | $(\mathbf{A})$ | $\mathbf{( V )}$ | $(\mathbf{A})$ | Current(A) | Time(S) | $(\mathbf{W})$ | $(\boldsymbol{\Omega})$ | $(\Omega)$ |
| LP-MSM075/33 | 0.75 | 1.50 | 33 | 40 | 8.0 | 0.20 | 1.0 | 0.10 | 0.48 |

$\mathrm{I}_{\mathrm{H}}=$ Hold current: maximum current at which the device will not trip at $25^{\circ} \mathrm{C}$ still air.
$I_{\mathrm{T}}=$ Trip current: minimum current at which the device will always trip at $25^{\circ} \mathrm{C}$ still air.
$\mathrm{V}_{\text {max }}=$ Maximum voltage device can withstand without damage at rated current.
$I_{\text {max }}=$ Maximum fault current device can withstand without damage at rated voltage.
$\mathrm{T}_{\text {trip }}=$ Maximum time to trip(s) at assigned current.
Pd ${ }_{\text {typ }}=$ Typical power dissipation: typical amount of power dissipated by the device when in state air environment.
$\mathrm{R}_{\text {min }}=$ Minimum device resistance at $25^{\circ} \mathrm{C}$ prior to tripping.
$\mathrm{R}_{1 \text { max }}=$ Maximum device resistance measured in the nontripped state 1 hour post reflow.

## Thermal Derating

| LP-MSM075/33 | Maximum ambient operating temperature( ${ }^{\circ} \mathrm{C}$ ) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -40 | -20 | 0 | 20 | 25 | 40 | 50 | 60 | 70 | 80 |
| Hold Current (A) | 1.12 | 1.02 | 0.89 | 0.79 | 0.75 | 0.66 | 0.58 | 0.53 | 0.47 | 0.39 |
| Trip Current (A) | 2.24 | 2.04 | 1.78 | 1.58 | 1.50 | 1.32 | 1.16 | 1.06 | 0.94 | 0.78 |

Solder Reflow Recommendations


## Solder Pad Layouts

| Part number | A | $\mathbf{B}$ | $\mathbf{C}$ |
| :---: | :---: | :---: | :---: |
|  | $(\mathbf{m m})$ | $(\mathbf{m m})$ | $(\mathbf{m m})$ |
| LP-MSM075/33 | 3.45 | 1.78 | 3.15 |

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


## Notes:

- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.
- Devices are not designed to be wave soldered to the bottom side of the board.


## Package Information

Tape \& Reel: 1000pcs per reel.
Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid.
Caution: Operation beyond the rated voltage or current may result in rupture electrical arcing or flame.
Specifications are subject to change without notice.

