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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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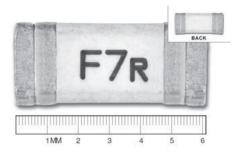




6125FF

Fast-acting subminiature fuses





Product description

- · Fast-acting surface mount fuse
- Overcurrent protection of systems up to 125Vac/72Vdc
- · High inrush withstand capability
- · Solder immersion compatible

Applications

- · Power supplies
- Servers
- · LED/LCD televisions
- · Appliances and white goods
- · LCD monitor/backlight inverters
- Laptops and notebooks

Agency information

• cURus Recognition file number: E19180, Guide JDYX2/JDYX8

Ordering

Specify part number and packaging prefix as shown

Packaging prefix Part number TR2- 6125FF1-R

Packaging prefixes

 TR2- (Tape and reel, 5000 parts per 13" diameter reel)



Electrical characteristics

| % of Amp Rating | Opening Time | | |
|-----------------|------------------|--|--|
| 100% | 4 Hours Minimum | | |
| 200% | 5 Second Maximum | | |

Product specifications

| | Voltage rating | | Interrupting rating¹ (amps) | | | DC_cold | Melting ² | Typical |
|-----------------------|--|--|--|--|--|--|---|---|
| Current rating (amps) | Vac | Vdc | 125Vac | 72Vdc | 32Vdc | resistance (mΩ) Typ. | I ² t (A ² second) | voltage drop (mV) |
| 500mA | 125 | 72 | 50 | 50 | 300 | 750 | 0.08 | 605 |
| 750mA | 125 | 72 | 50 | 50 | 300 | 350 | 0.152 | 433 |
| 1 | 125 | 72 | 50 | 50 | 300 | 260 | 0.22 | 415 |
| 1.25 | 125 | 72 | 50 | 50 | 300 | 171 | 0.355 | 410 |
| 1.5 | 125 | 72 | 50 | 50 | 300 | 112 | 0.456 | 365 |
| 2 | 125 | 72 | 50 | 50 | 300 | 49 | 1.67 | 160 |
| 2.5 | 125 | 72 | 50 | 50 | 300 | 45 | 5.20 | 155 |
| 3 | 125 | 72 | 50 | 50 | 300 | 35 | 6.24 | 153 |
| 3.5 | 125 | 72 | 50 | 50 | 300 | 27 | 7.28 | 150 |
| 4 | 125 | 72 | 50 | 50 | 300 | 26 | 7.4 | 145 |
| 5 | 125 | 72 | 50 | 50 | 300 | 17 | 9.5 | 141 |
| 6.3 | 125 | 72 | 50 | 50 | 300 | 14 | 15.1 | 135 |
| 7 | 125 | 72 | 50 | 50 | 300 | 11 | 37.25 | 112 |
| 8 | 125 | 72 | 50 | 50 | 300 | 8.7 | 70 | 110 |
| 10 | 125 | 72 | 50 | 50 | 300 | 7.3 | 67.75 | 110 |
| 12 | 125 | 72 | 50 | 50 | 300 | 5.3 | 210.59 | 106 |
| 15 | 125 | 72 | 50 | 50 | 300 | 4.2 | 296.10 | 104 |
| | 500mA 750mA 1 1.25 1.5 2 2.5 3 3.5 4 5 6.3 7 8 10 12 | Current rating (amps) Vac 500mA 125 750mA 125 1 125 1.25 125 1.5 125 2 125 2.5 125 3 125 3.5 125 4 125 5 125 6.3 125 7 125 8 125 10 125 12 125 | Current rating (amps) Vac Vdc 500mA 125 72 750mA 125 72 1 125 72 1.25 125 72 1.5 125 72 2 125 72 2.5 125 72 3 125 72 3.5 125 72 4 125 72 5 125 72 6.3 125 72 7 125 72 8 125 72 10 125 72 12 125 72 | Current rating (amps) Vac Vdc 125Vac 500mA 125 72 50 750mA 125 72 50 1 125 72 50 1.25 72 50 1.5 125 72 50 2 125 72 50 2.5 125 72 50 3 125 72 50 3.5 125 72 50 4 125 72 50 5 125 72 50 6.3 125 72 50 7 125 72 50 8 125 72 50 10 125 72 50 12 50 50 50 | Current rating (amps) Vac Vdc 125Vac 72Vdc 500mA 125 72 50 50 750mA 125 72 50 50 1 125 72 50 50 1.25 125 72 50 50 1.5 125 72 50 50 2 125 72 50 50 2.5 125 72 50 50 3 125 72 50 50 3.5 125 72 50 50 4 125 72 50 50 5 125 72 50 50 6.3 125 72 50 50 7 125 72 50 50 8 125 72 50 50 10 125 72 50 50 10 125 72 50 | Current rating (amps) Vac Vdc 125Vac 72Vdc 32Vdc 500mA 125 72 50 50 300 750mA 125 72 50 50 300 1 125 72 50 50 300 1.25 125 72 50 50 300 1.5 125 72 50 50 300 2 125 72 50 50 300 2.5 125 72 50 50 300 2.5 125 72 50 50 300 3 125 72 50 50 300 3.5 125 72 50 50 300 4 125 72 50 50 300 5 125 72 50 50 300 6.3 125 72 50 50 300 7 | Current rating (amps) Vac Vdc 125Vac 72Vdc 32Vdc resistance (mΩ) Typ. 500mA 125 72 50 50 300 750 750mA 125 72 50 50 300 350 1 125 72 50 50 300 260 1.25 125 72 50 50 300 171 1.5 125 72 50 50 300 112 2 125 72 50 50 300 49 2.5 125 72 50 50 300 49 2.5 125 72 50 50 300 45 3 125 72 50 50 300 27 4 125 72 50 50 300 26 5 125 72 50 50 300 17 6.3 125 | Current rating (amps) Vac Vdc 125Vac 72Vdc 32Vdc Ft (mΩ) Typ. Rt second) (A² second) 500mA 125 72 50 50 300 750 0.08 750mA 125 72 50 50 300 350 0.152 1 125 72 50 50 300 260 0.22 1.25 125 72 50 50 300 171 0.355 1.5 125 72 50 50 300 112 0.456 2 125 72 50 50 300 49 1.67 2.5 125 72 50 50 300 49 1.67 2.5 125 72 50 50 300 45 5.20 3 125 72 50 50 300 27 7.28 4 125 72 50 50 300 < |

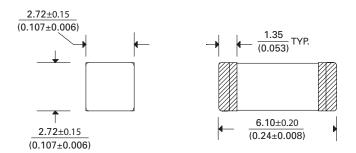
¹ AC Interrupting Rating (Measured at designated voltage, 100% power factor); DC Interrupting Rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)

6125FF= Product code and size

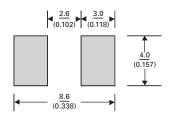
xxx= Ampere

-R= RoHS compliant

Dimensions-mm (in)



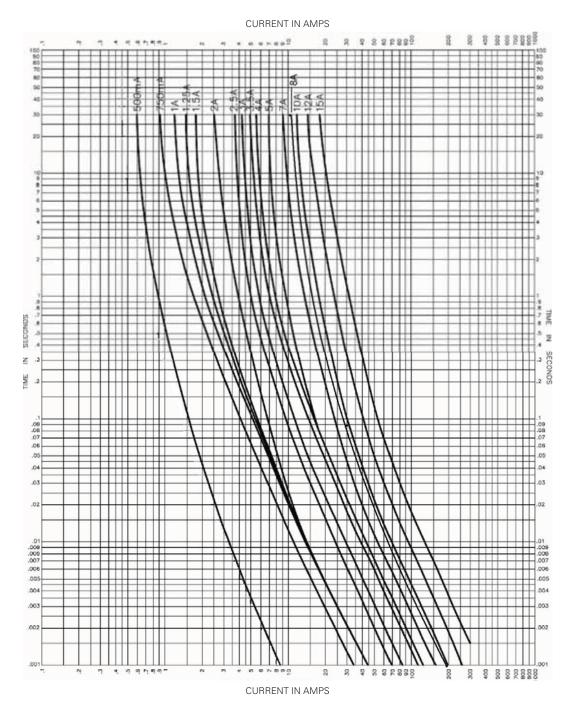
Recommended pad layout-mm (in)



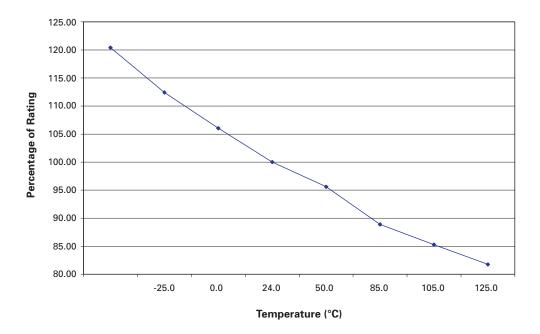
² Typical Melting I²t (Measured at 72Vdc, 10X rated current (not exceed 50A - IR @ 72Vdc)

³ Part number definition: 6125FFxxx-R

Time vs. current curve



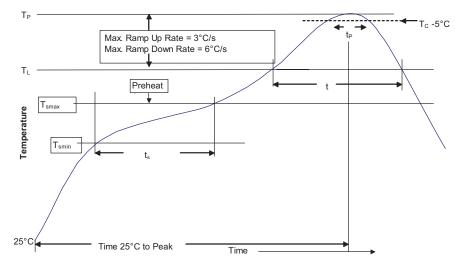
Temperature derating curve



Environmental data

| Operating temperature: -55°C to 125°C (with derating) |
|---|
| Storage temperature: -55°C to 125°C |
| Mechanical shock: MIL- STD- 202, method 213 |
| High frequency vibration: MIL- STD- 202, method 204 |
| Load humidity: MIL- STD- 202, method 103 |
| Moisture resistance: MIL- STD- 202, method 106 |
| Resistance to solvents: MIL- STD- 202, method 215 |
| Thermal shock: MIL- STD- 202, Method 107 |

Solder Reflow Profile



 $-_{\mathsf{T}_{\mathsf{C}}\text{--}5^{\circ}\mathsf{C}}$ Table 1 - Standard SnPb Solder (T_{C})

| Package Thickness | Volume mm3 <350 | Volume mm3 ≥350 |
|----------------------|-----------------------|-----------------------|
| <2.5mm) | 235°C | 220°C |
| ≥2.5mm | 220°C | 220°C |

Table 2 - Lead (Pb) Free Solder (T_C)

| Package Thickness | Volume mm³ <350 | Volume mm³ 350 - 2000 | Volume mm³ >2000 |
|----------------------|-----------------------|-----------------------------|------------------------|
| <1.6mm | 260°C | 260°C | 260°C |
| 1.6 – 2.5mm | 260°C | 250°C | 245°C |
| >2.5mm | 250°C | 245°C | 245°C |

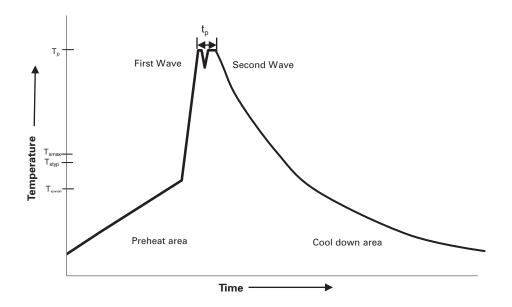
Reference JDEC J-STD-020D

| Profile Feature | Standard SnPb Solder | Lead (Pb) Free Solder |
|---|-------------------------|-------------------------|
| Preheat and Soak • Temperature min. (T _{smin}) | 100°C | 150°C |
| • Temperature max. (T _{smax}) | 150°C | 200°C |
| • Time (T _{smin} to T _{smax}) (t _s) | 60-120 Seconds | 60-120 Seconds |
| Average ramp up rate T_{Smax} to T_p | 3°C/ Second Max. | 3°C/ Second Max. |
| Liquidous temperature (TL) Time at liquidous (tL) | 183°C 60-150 Seconds | 217°C 60-150 Seconds |
| Peak package body temperature (Tp)* | Table 1 | Table 2 |
| Time $(t_p)^{**}$ within 5 °C of the specified classification temperature (T_c) | 20 Seconds** | 30 Seconds** |
| Average ramp-down rate (T _p to T _{smax}) | 6°C/ Second Max. | 6°C/ Second Max. |
| Time 25°C to Peak Temperature | 6 Minutes Max. | 8 Minutes Max. |
| | | |

 $^{^{*}}$ Tolerance for peak profile temperature (T $_{\rm p}$) is defined as a supplier minimum and a user maximum.

^{**} Tolerance for time at peak profile temperature (tp) is defined as a supplier minimum and a user maximum.

Wave solder profile



Reference EN 61760-1:2006

| Profile feature | Standard SnPb solder | Lead (Pb) free solder | |
|--|---|---|--|
| Preheat and soak • Temperature min. (T _{smin}) | 100°C | 100°C | |
| Temperature typ. (T_{Styp}) | 120°C | 120°C | |
| • Temperature max. (T _{smax}) | 130°C | 130°C | |
| Time max. (T_{smin} to T_{smax}) (t_s) | 70 Seconds | 70 Seconds | |
| Δ preheat to max Temeperature | 150°C max. | 150°C max. | |
| Peak temperature (Tp) | 235°C - 260°C | 250°C - 260°C | |
| Peak package body temperature (Tp)* | Table 1 | Table 2 | |
| Time at peak temperature (t _p) | 10 seconds max 5 seconds max each wave | 10 seconds max 5 seconds max each | |
| Ramp-down rate | ~ 2 K/s min ~3.5 K/s typ ~5 K/s max | ~ 2 K/s min ~3.5 K/s typ ~5 K/s max | |
| Time 25°C to 25°C | 4 minutes | 4 minutes | |

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