|     | - <b>-</b> |
|-----|------------|
| ΡΛΝ | JIT        |
|     | SEMI       |
|     | CONDUCTOR  |

#### P6AF3.3A~P6AF64A SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR 600 W SMAF Unit: inch(mm) 3.3~64 V Power Voltage 0.103(2.60) Features • For surface mounted applications in order to optimize board space. 0.053(1.85) 0.044(1.10) 0.035(0.90) 0.154(3.90) Ultra thin profile package for space constrained utilization. 0.145(3.70) 0.010(0.25) Package suitable for automated handling Low inductance 0.193(4.90) High temperature soldering : 260°C/10 seconds at terminals 0.177(4.50) • Lead free in compliance with EU RoHS 2.0 • Green molding compound as per IEC 61249 standard **Mechanical Data** ).038(0.95) 0.038(0.95) 0.021(0.55) Case: SMAF, Plastic Terminals: Solderable per MIL-STD-750, Method 2026 Polarity: Color band denotes cathode end Approx. Weight: 0.0011 ounces, 0.0328 grams

#### **Maximum Ratings**

| PARAMETER   | SYMBOL           | VALUE       | UNITS |  |
|---|------------------|-------------|-------|--|
| Peak Pulse Power Dissipation(tp=10/1000µ s) <sup>(NOTE1,2)</sup>      | P <sub>PP</sub>  | 600         | W     |  |
| Peak Forward Surge Currert<br>(8.3ms single half sine-wave)           | I <sub>FSM</sub> | 100         | А     |  |
| Peak Pulse Current on tp=10/1000µ s Waveform <sup>(NOTE1,Fig.2)</sup> | I <sub>PPM</sub> | See table 1 | А     |  |
| ESD IEC61000-4-2(Air)   | V                | ±30         |       |  |
| ESD IEC61000-4-2(Contact)   | V <sub>ESD</sub> | ±30         | kV    |  |
| Typical Thermal Resistance Junction to Ambient <sup>(NOTE 3)</sup>    | $R_{\theta}$ JA  | 150         | °C/W  |  |
| Operating Junction Temperature Range                                  | TJ               | -55 to +150 | °C    |  |
| Storage Temperature Range   | T <sub>STG</sub> | -55 to +150 | °C    |  |

Notes :

- 1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A\!=\!25^\circ\!\!\mathbb{C}$  per Fig.2
- 2. Mounted on 5mm<sup>2</sup> copper pads to each terminal.
- 3. Mounted on a FR4 PCB, single-sided copper, mini pad.
- 4. A transient suppressor is selected according to the working peak reverse voltage( $V_{RWM}$ ), which should be equal to or greater than the DC or continuous peak operation voltage level.
- 5. TVS is a transient protection device, it is strongly recommended not to use as a Zener.



# P6AF3.3A~P6AF64A

#### **Electrical Characteristics**

| Part Number | V <sub>RWM</sub> |      | V <sub>BR</sub> |                |  | $V_C@I_{PP}$ |      | Manlaha |
|-------------|------------------|------|-----------------|----------------|--|--------------|------|---------|
|             | (NOTE 4)         | Min. | Max.            | Ι <sub>Τ</sub> | - I <sub>R</sub> @V <sub>RWM</sub> -<br>μΑ | Max.         |      | Marking |
|             | V                | V    | V               | mA             |  | V            | А    | Code    |
| P6AF3.3A    | 3.3              | 5.2  | 6               | 10             | 100  | 8            | 75   | FKCS    |
| P6AF5.0A    | 5                | 6.4  | 7               | 10             | 50   | 9.2          | 65.2 | FKES    |
| P6AF6.0A    | 6                | 6.67 | 7.37            | 10             | 50   | 10.3         | 58.3 | FKGS    |
| P6AF6.5A    | 6.5              | 7.22 | 7.98            | 10             | 40   | 11.2         | 53.6 | FKKS    |
| P6AF7.0A    | 7                | 7.78 | 8.6             | 10             | 40   | 12           | 50   | FKMS    |
| P6AF7.5A    | 7.5              | 8.33 | 9.21            | 1              | 30   | 12.9         | 46.5 | FKPS    |
| P6AF8.0A    | 8                | 8.89 | 9.83            | 1              | 5  | 13.6         | 44.1 | FKRS    |
| P6AF8.5A    | 8.5              | 9.44 | 10.4            | 1              | 5  | 14.4         | 41.7 | FKTS    |
| P6AF9.0A    | 9                | 10   | 11.1            | 1              | 0.5  | 15.4         | 39   | FKVS    |
| P6AF10A     | 10               | 11.1 | 12.3            | 1              | 0.5  | 17           | 35.3 | FKXS    |
| P6AF11A     | 11               | 12.2 | 13.5            | 1              | 0.5  | 18.2         | 33   | FKZS    |
| P6AF12A     | 12               | 13.3 | 14.7            | 1              | 0.5  | 19.9         | 30.2 | FLES    |
| P6AF13A     | 13               | 14.4 | 15.9            | 1              | 0.1  | 21.5         | 27.9 | FLGS    |
| P6AF14A     | 14               | 15.6 | 17.2            | 1              | 0.1  | 23.2         | 25.9 | FLKS    |
| P6AF15A     | 15               | 16.7 | 18.5            | 1              | 0.1  | 24.4         | 24.6 | FLMS    |
| P6AF16A     | 16               | 17.8 | 19.7            | 1              | 0.1  | 26           | 23.1 | FLPS    |
| P6AF17A     | 17               | 18.9 | 20.9            | 1              | 0.1  | 27.6         | 21.7 | FLRS    |
| P6AF18A     | 18               | 20   | 22.1            | 1              | 0.1  | 29.2         | 20.5 | FLTS    |
| P6AF20A     | 20               | 22.2 | 24.5            | 1              | 0.1  | 32.4         | 18.5 | FLVS    |
| P6AF22A     | 22               | 24.4 | 26.9            | 1              | 0.1  | 35.5         | 16.9 | FLXS    |
| P6AF24A     | 24               | 26.7 | 29.5            | 1              | 0.1  | 38.9         | 15.4 | FLZS    |
| P6AF26A     | 26               | 28.9 | 31.9            | 1              | 0.1  | 42.1         | 14.3 | FMES    |
| P6AF28A     | 28               | 31.1 | 34.4            | 1              | 0.1  | 45.4         | 13.2 | FMGS    |
| P6AF30A     | 30               | 33.3 | 36.8            | 1              | 0.1  | 48.4         | 12.4 | FMKS    |
| P6AF33A     | 33               | 36.7 | 40.6            | 1              | 0.1  | 53.3         | 11.3 | FMMS    |
| P6AF36A     | 36               | 40   | 44.2            | 1              | 0.1  | 58.1         | 10.3 | FMPS    |
| P6AF40A     | 40               | 44.4 | 49.1            | 1              | 0.1  | 64.5         | 9.3  | FMRS    |
| P6AF43A     | 43               | 47.8 | 52.8            | 1              | 0.1  | 69.4         | 8.6  | FMTS    |
| P6AF45A     | 45               | 50   | 55.3            | 1              | 0.1  | 72.7         | 8.3  | FMVS    |
| P6AF48A     | 48               | 53.3 | 58.9            | 1              | 0.1  | 77.4         | 7.8  | FMXS    |
| P6AF51A     | 51               | 56.7 | 62.7            | 1              | 0.1  | 82.4         | 7.3  | FMZS    |
| P6AF54A     | 54               | 60   | 66.3            | 1              | 0.1  | 87.1         | 6.9  | FNES    |
| P6AF58A     | 58               | 64.4 | 71.2            | 1              | 0.1  | 93.6         | 6.4  | FNGS    |
| P6AF60A     | 60               | 66.7 | 73.7            | 1              | 0.1  | 96.8         | 6.2  | FNKS    |
| P6AF64A     | 64               | 71.1 | 78.6            | 1              | 0.1  | 103          | 5.8  | FNMS    |

# P6AF3.3A~P6AF64A

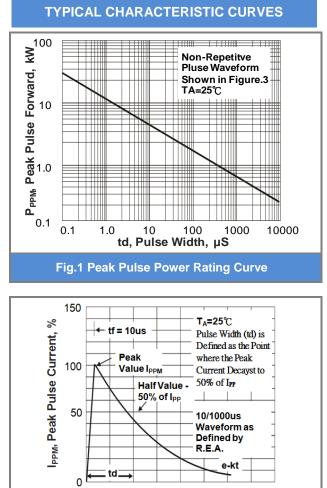


Fig.3 Pulse Waveform

2.0

T, Time, ms

3.0

1.0

0

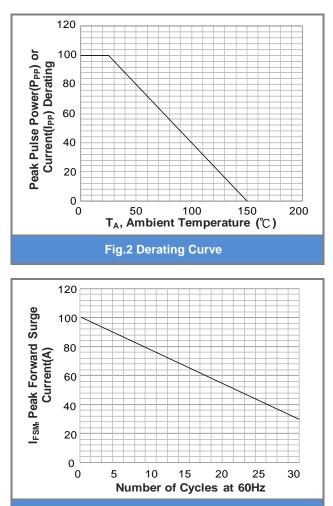


Fig.4 Maximum Non-repetitive Peak Forward Surge Current

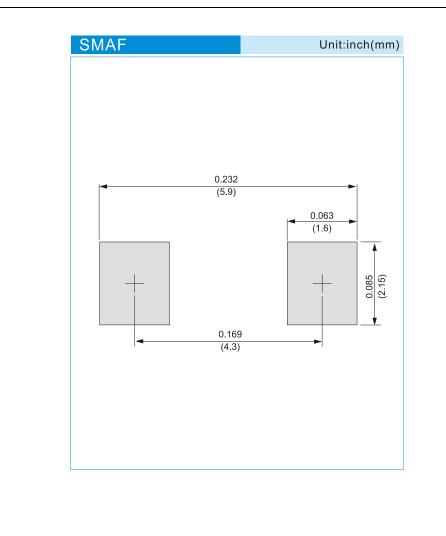


# P6AF3.3A~P6AF64A

#### Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type       | Marking | Version      |
|----------------------|--------------|--------------------|---------|--------------|
| P6AF3.3A_R1_00001    | SMAF         | 3K pcs / 7" reel   | FKCS    | Halogen free |
| P6AF3.3A_R2_00001    | SMAF         | 10K pcs / 13" reel | FKCS    | Halogen free |

### **Mounting Pad Layout**





### P6AF3.3A~P6AF64A

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.



单击下面可查看定价,库存,交付和生命周期等信息

>>Panjit(强茂)