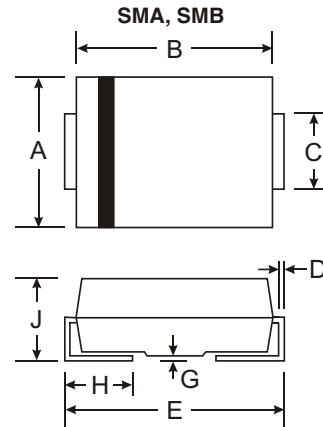


### Features

- 400, 600W Peak Pulse Power Dissipation
- 70V Standoff Voltage
- 100V Maximum Clamping Voltage - A requirement of many -48V Backplane Telecom Applications
- Glass Passivated Die Construction
- Fast Response Time: Typically less than 1 ps
- Plastic Material - UL Flammability Classification Rating 94V-0

### Mechanical Data

- Case: SMA, SMB Transfer Molded Epoxy
- Case Material - UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity Indicator: Cathode Band
- Marking: Date Code (See Page 3) and Marking Code (See Page 1)
- Weight: SMA 0.064 grams  
SMB 0.093 grams
- Ordering Information: See Page 3



| Package | SMAT70A |      | SMBT70A |      |
|---------|---------|------|---------|------|
|         | Min     | Max  | Min     | Max  |
| Dim     |         |      |         |      |
| A       | 2.29    | 2.92 | 3.30    | 3.94 |
| B       | 4.00    | 4.60 | 4.06    | 4.57 |
| C       | 1.27    | 1.63 | 1.96    | 2.21 |
| D       | 0.15    | 0.31 | 0.15    | 0.31 |
| E       | 4.80    | 5.59 | 5.00    | 5.59 |
| G       | 0.10    | 0.20 | 0.10    | 0.20 |
| H       | 0.76    | 1.52 | 0.76    | 1.52 |
| J       | 2.01    | 2.62 | 2.00    | 2.62 |

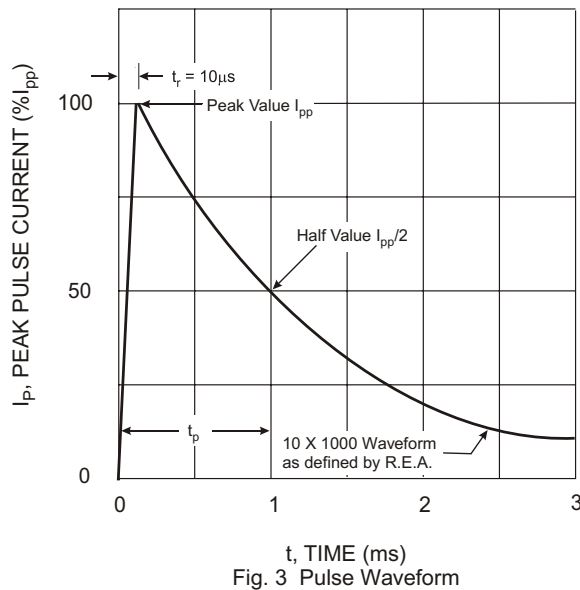
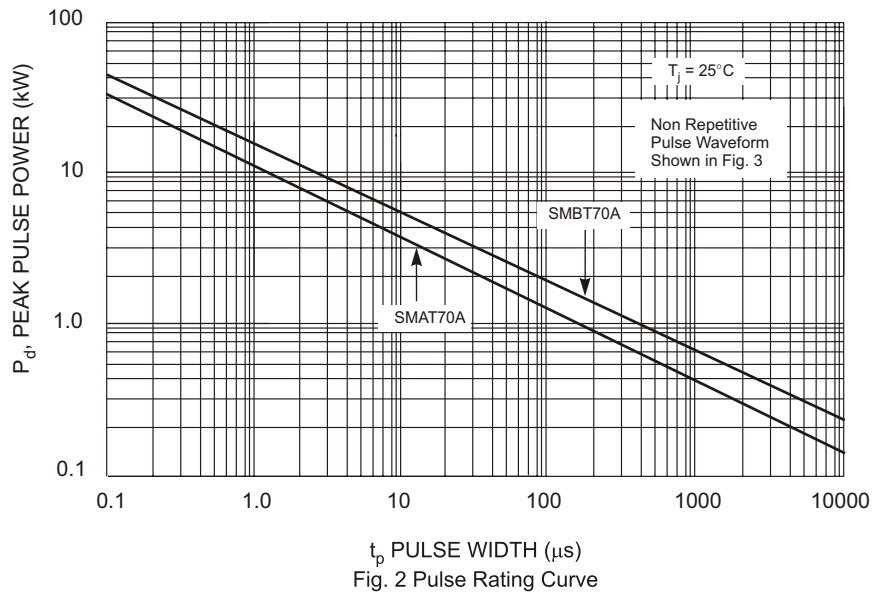
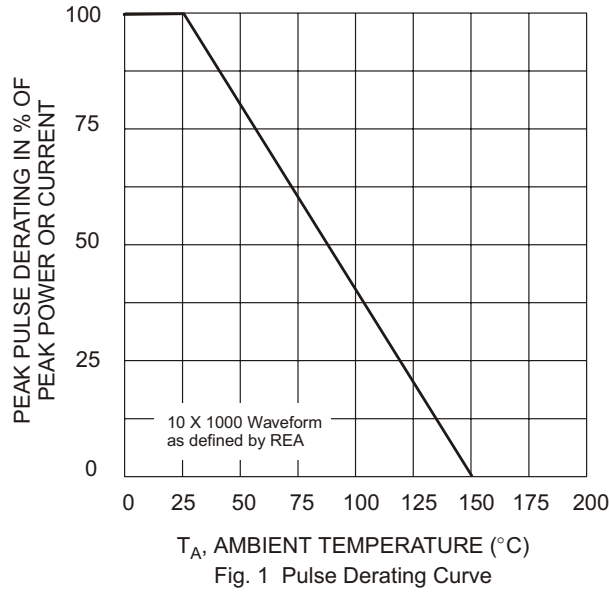
### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

| Characteristic  | Symbol                            | SMAT70A     | SMBT70A | Unit |
|---|-----------------------------------|-------------|---------|------|
| Peak Pulse Power Dissipation<br>(Non repetitive current pulse derated above T <sub>A</sub> = 25°C)            | P <sub>PK</sub>                   | 400         | 600     | W    |
| Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)<br>(Note 2) | I <sub>FSM</sub>                  | 40          | 100     | A    |
| Instantaneous Forward Voltage @ I <sub>PP</sub> = 35A<br>(Note 2)   | V <sub>F</sub>                    | 3.5         |         | V    |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>STG</sub> | -55 to +150 |         | °C   |

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

| Part Number | Reverse Standoff Voltage | Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub> (Note 3) |         | Test Current        | Max. Reverse Leakage @ V <sub>RWM</sub> | Max. Clamping Voltage @ I <sub>pp</sub> | Max. Peak Pulse Current I <sub>pp</sub> | Typical Junction Capacitance (Note 3) | Typical Voltage Temp. Variation of V <sub>BR</sub> | Marking Code |
|-------------|--------------------------|---|---------|---------------------|---|---|---|---------------------------------------|--|--------------|
|             | V <sub>RWM</sub> (V)     | Min (V)   | Max (V) | I <sub>T</sub> (mA) | I <sub>R</sub> (μA)                     | V <sub>C</sub> (V)                      | (A)                                     | (pF)                                  | mV/°C  |              |
| SMAT70A     | 70                       | 77.8  | 89.5    | 1.0                 | 5.0                                     | 100                                     | 3.5                                     | 55                                    | 80   | KEX          |
| SMBT70A     | 70                       | 77.8  | 89.5    | 1.0                 | 5.0                                     | 100                                     | 5.3                                     | 80                                    | 80   | NPX          |

- Notes:
1. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
  2. V<sub>BR</sub> measured with I<sub>T</sub> current pulse = 300μs.
  3. f = 1MHz, V<sub>R</sub> = 0VDC.



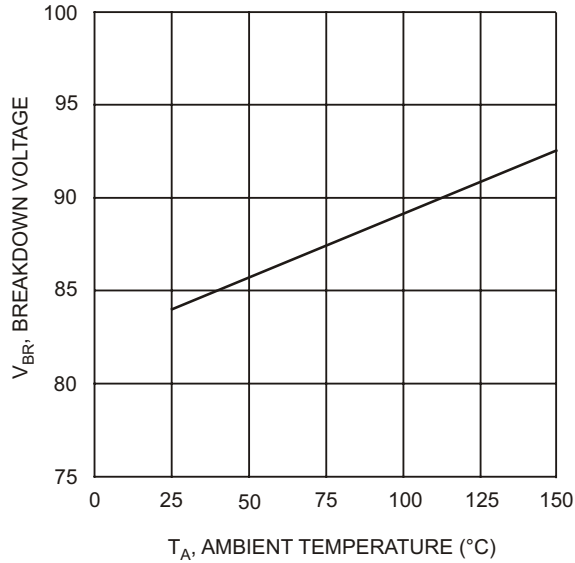


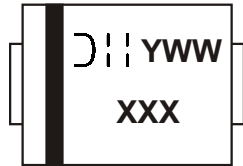
Fig. 4 Average Breakdown Voltage vs. Ambient Temperature

**Ordering Information** (Note 4)

| Device                   | Packaging  | Shipping         |
|--------------------------|------------|------------------|
| SMAT70A-13<br>SMBT70A-13 | SMA<br>SMB | 5000/Tape & Reel |

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**



XXX = Product type marking code (See Sheet 1)  
 D11 = Manufacturers' code marking  
 YWW = Date code marking  
 Y = Last digit of year ex: 2 for 2002  
 WW = Week code 01 to 52

单击下面可查看定价，库存，交付和生命周期等信息

[>>Diodes Incorporated\(达达科技\(美台\)\)](#)