



BAS516

Features

- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Ultra-Small Surface Mount Package
- High Switching Speed
- For General Purpose Switching Applications
- Marking : 61
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

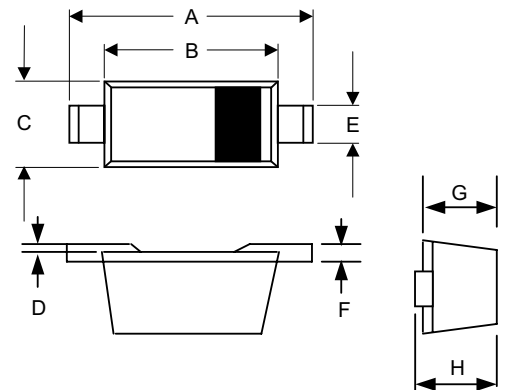
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-----------|------------------------------------|--|
| DC Reverse Voltage | V_R | 75V | |
| Forward Current | I_F | 250mA | |
| Repetitive Forward Current | I_{FRM} | 500mA | |
| Maximum Instantaneous Forward Voltage | V_F | 715mV 855mV 1000mV 1250mV | $I_F = 1mA$ $I_F = 10mA$; $I_F = 50mA$ $I_F = 150mA$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.03 μA 1 μA | $V_R = 25Volts$ $V_R = 75Volts$ |
| Typical Diode Capacitance | C_D | 1pF | Measured at 1.0MHz, $V_R = 0V$ |
| Junction temperature | T_j | 150°C | |
| Reverse Recovery Time | T_{rr} | 4nS | $I_F = I_R = 10mA$ dc, $V_R = 0V$ $R_L = 100\Omega$ |

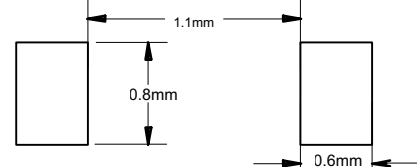
Switching Diode

SOD-523



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .059 | .067 | 1.50 | 1.70 | |
| B | .043 | .051 | 1.10 | 1.30 | |
| C | .030 | .033 | 0.75 | 0.85 | |
| D | .001 | .003 | 0.01 | 0.07 | |
| E | .010 | .014 | 0.25 | 0.35 | |
| F | .003 | .006 | 0.08 | 0.15 | |
| G | .020 | .028 | 0.50 | 0.70 | |
| H | .020 | .031 | 0.51 | 0.77 | |

Suggested Solder Pad Layout



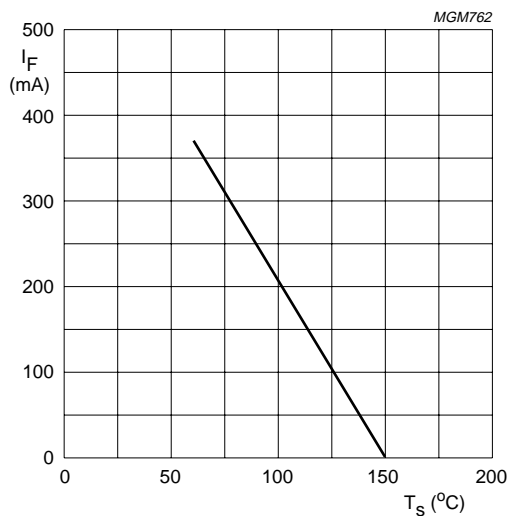
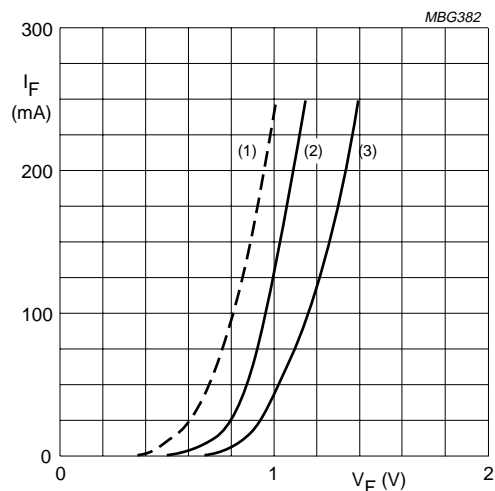
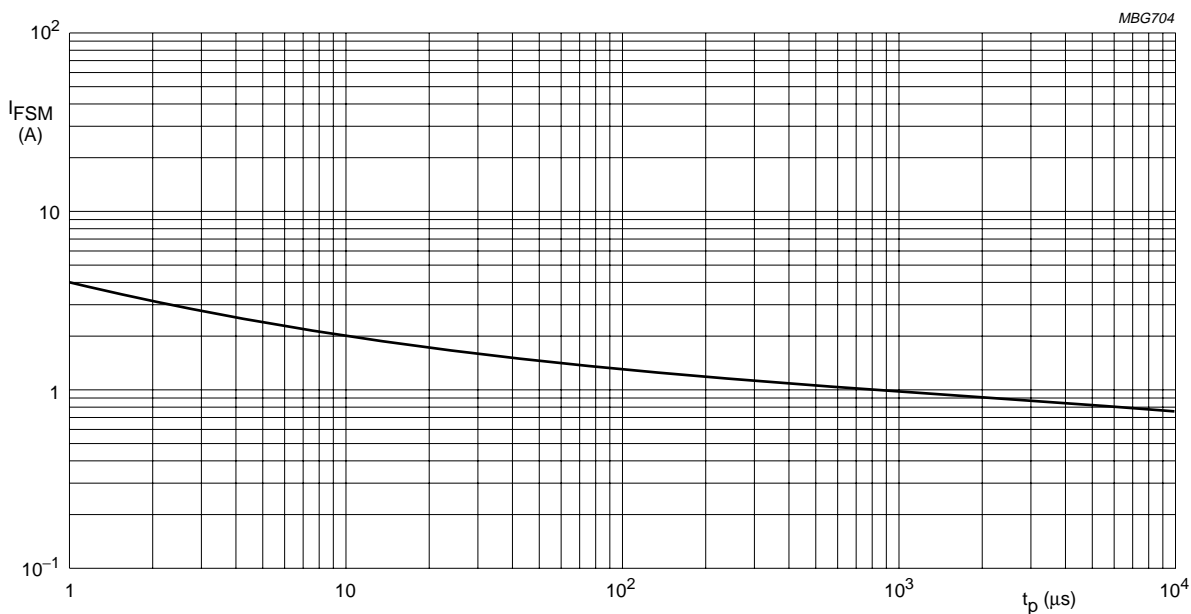


Fig.2 Maximum permissible continuous forward current as a function of soldering point temperature.



- (1) $T_j = 150^\circ\text{C}$; typical values.
- (2) $T_j = 25^\circ\text{C}$; typical values.
- (3) $T_j = 25^\circ\text{C}$; maximum values.

Fig.3 Forward current as a function of forward voltage.



Based on square wave currents; $T_j = 25^\circ\text{C}$ prior to surge.

Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 8Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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