Micro Commercial Components
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# BAS516

## Switching Diode

## 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

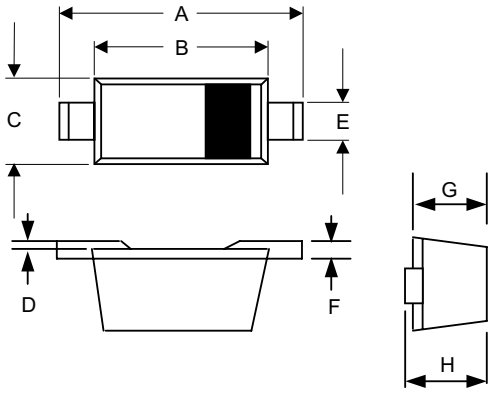
## Maximum Ratings

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

### Electrical Characteristics @ 25°C Unless Otherwise Specified

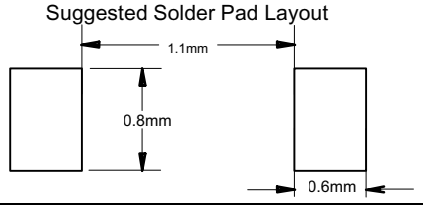
| | | | |
|---|---|---|---|
| DC Reverse Voltage | $V_R$ | 100V | |
| Forward Current | $I_F$ | 250mA | |
| Repetitive Forward Current | $I_{FRM}$ | 500mA | |
| Maximum Instantaneous Forward Voltage | $V_F$ | 715mV<br>855mV<br>1000mV<br>1250mV | $I_F$ = 1mA<br>$I_F$ = 10mA;<br>$I_F$ = 50mA<br>$I_F$ =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

## SOD-523




| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| 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



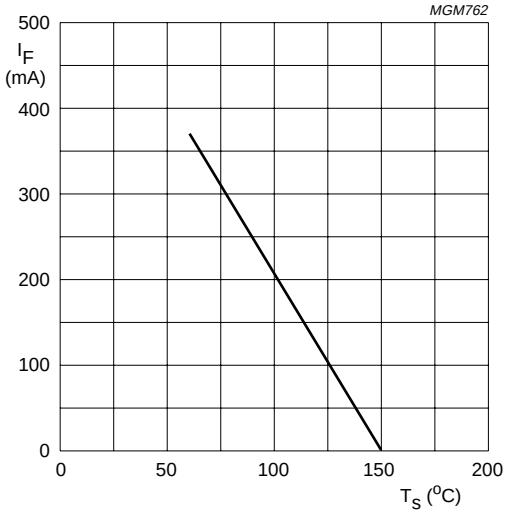
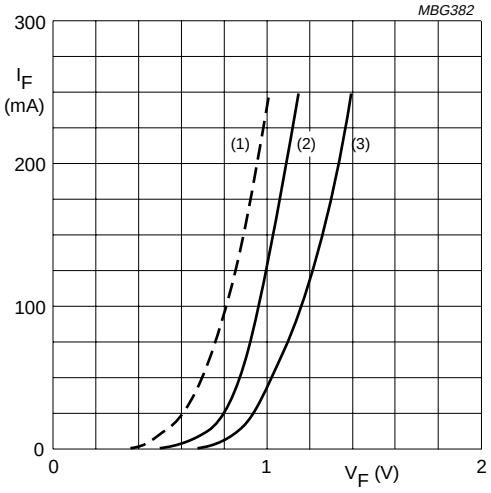
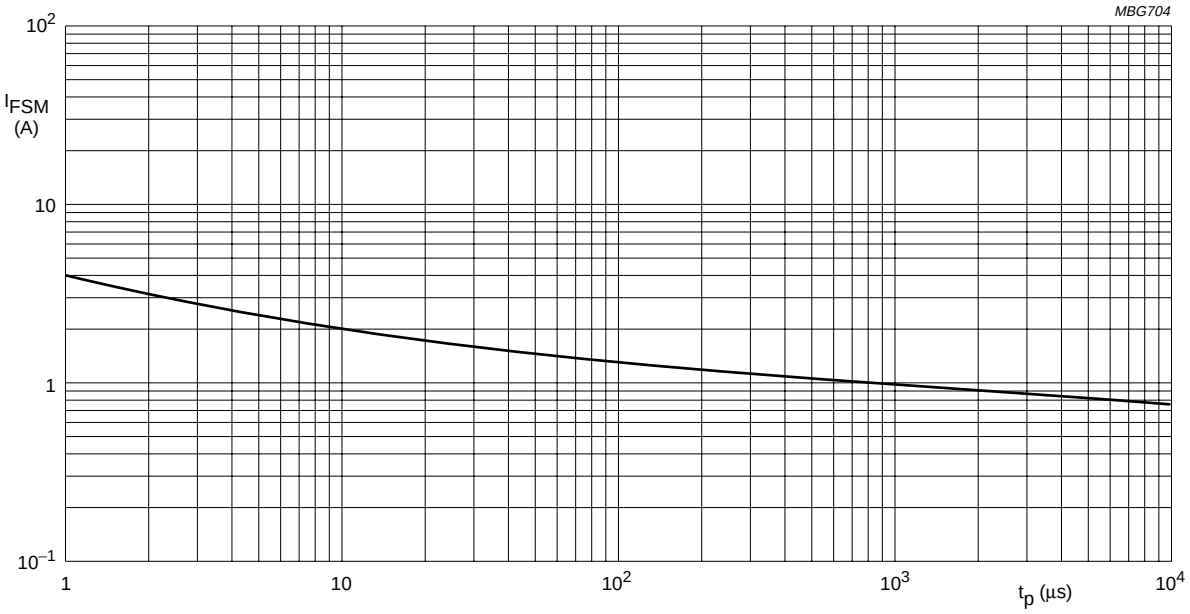



Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.




(1) $T_j$ = 150 °C; typical values.
(2) $T_j$ = 25 °C; typical values.
(3) $T_j$ = 25 °C; maximum values.

Fig.2 Forward current as a function of forward voltage.




Based on square wave currents; $T_j$ = 25 °C prior to surge.

Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

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## 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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