## ELECTRICAL CHARACTERISTICS

### STATIC CHARACTERISTICS

| Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| $V_{BR}$ | Tj = 25°C $I_R$ = 10µA | 70 | | | V |
| $V_F$ * | Tj = 25°C $I_F$ = 1mA | | | 410 | mV |
| $I_R$ ** | Tj = 25°C $V_R$ = 50V | | | 200 | nA |

Pulse test: * tp = 380µs, δ < 2%
** tp = 5 ms, δ < 2%

### DYNAMIC CHARACTERISTICS

| Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| C | Tj = 25°C $V_R$ = 0V F = 1MHz | | | 2 | pF |
| τ* | Tj = 25°C $I_F$ = 5mA Krakauer Method | | | 100 | ps |

* Effective carrier life time.

**Fig. 1-1:** Forward voltage drop versus forward current (low level).

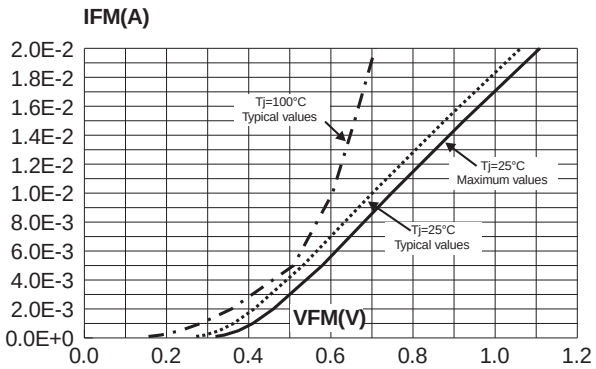



**Fig. 1-2:** Forward voltage drop versus forward current (high level).

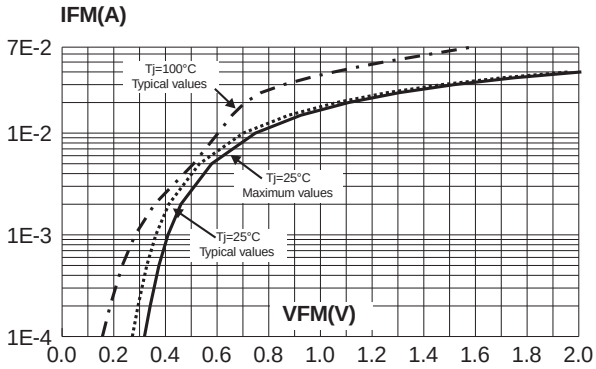


**Fig. 2:** Reverse leakage current versus reverse voltage applied (typical values).

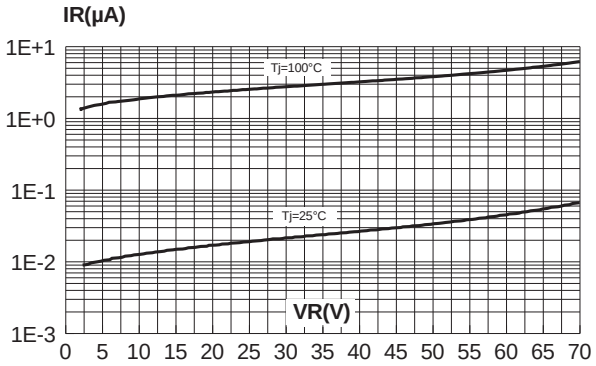



**Fig. 3:** Reverse leakage current versus junction temperature (typical values)

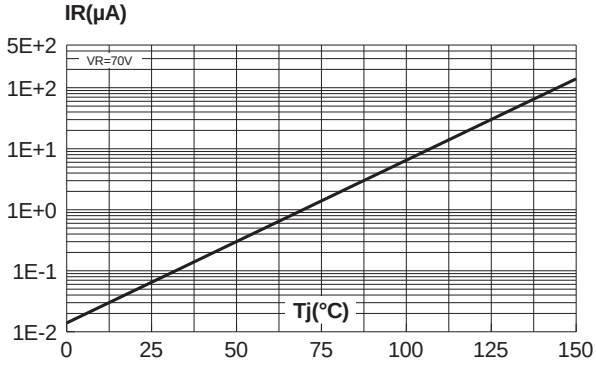



**Fig. 4:** Junction capacitance versus reverse voltage applied (typical values).

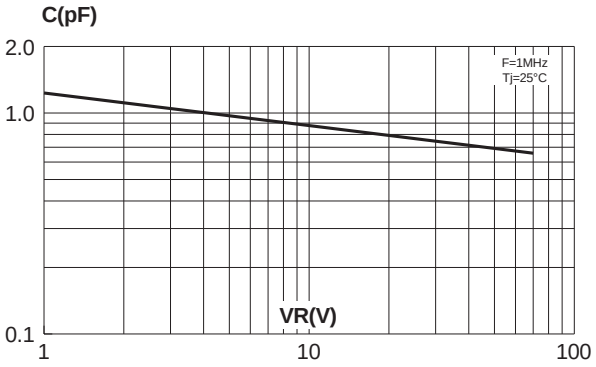



**Fig. 5:** Relative variation of thermal impedance junction to ambient versus pulse duration (alumine substrate 10mm*8mm*0.5mm).

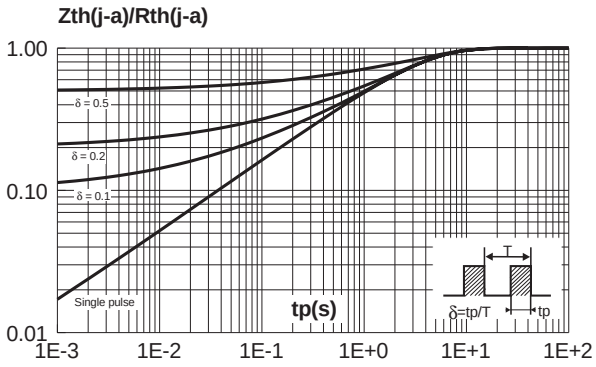
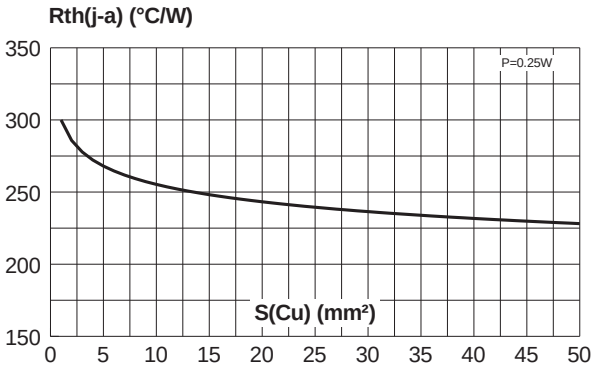
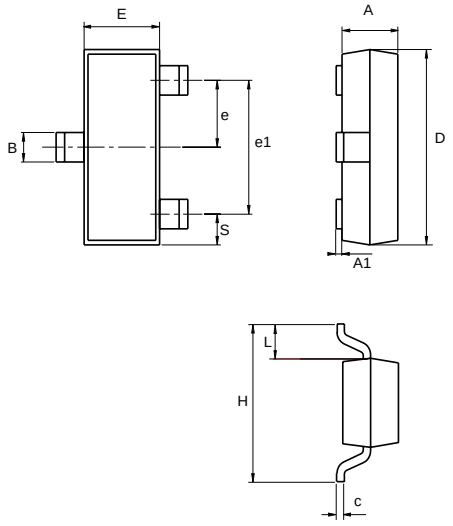



**Fig. 6:** Thermal resistance junction to ambient versus copper surface under each lead (Epoxy printed circuit board FR4, copper thickness: 35µm).



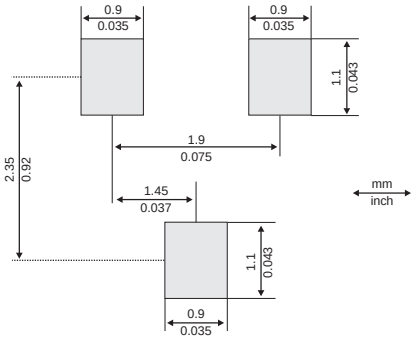
## PACKAGE MECHANICAL DATA

SOT23 (Plastic)




| REF. | DIMENSIONS | | | |
|---|---|---|---|---|
| | Millimeters | | Inches | |
| | Min. | Max. | Min. | Max. |
| A | 0.89 | 1.4 | 0.035 | 0.055 |
| A1 | 0 | 0.1 | 0 | 0.004 |
| B | 0.3 | 0.51 | 0.012 | 0.02 |
| c | 0.085 | 0.18 | 0.003 | 0.007 |
| D | 2.75 | 3.04 | 0.108 | 0.12 |
| e | 0.85 | 1.05 | 0.033 | 0.041 |
| e1 | 1.7 | 2.1 | 0.067 | 0.083 |
| E | 1.2 | 1.6 | 0.047 | 0.063 |
| H | 2.1 | 2.75 | 0.083 | 0.108 |
| L | 0.6 typ. | | 0.024 typ. | |
| S | 0.35 | 0.65 | 0.014 | 0.026 |

## FOOTPRINT DIMENSIONS




| Ordering type | Marking | Package | Weight | Base qty | Delivery mode |
|---|---|---|---|---|---|
| BAR18 | D76 | SOT-23 | 0.01g | 3000 | Tape & reel |
| BAS70-04 | D96 | SOT-23 | 0.01g | 3000 | Tape & reel |
| BAS70-05 | D97 | SOT-23 | 0.01g | 3000 | Tape & reel |
| BAS70-06 | D98 | SOT-23 | 0.01g | 3000 | Tape & reel |

- Epoxy meets UL94,V0

# Mouser Electronics

Authorized Distributor

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