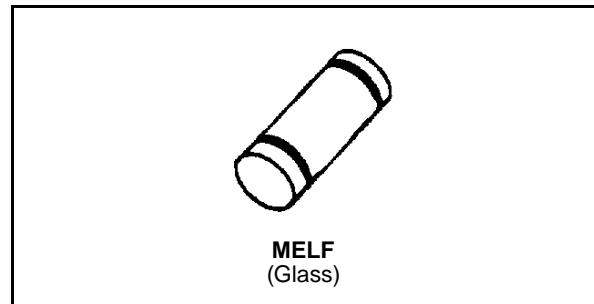




SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

General purpose metal to silicon diode featuring very low turn-on voltage and fast switching. This device has integrated protection against excessive voltage such as electrostatic discharges.



ABSOLUTE MAXIMUM RATINGS (limiting values)

| Symbol | Parameter | | Value | Unit |
|--------------------|--|---|--------------------------------|--------------------------------------|
| V_{RRM} | Repetitive Peak Reverse Voltage | | 80 | V |
| I_F | Forward Continuous Current | $T_j = 70\text{ }^\circ\text{C}$ | 500 | mA |
| I_{FRM} | Repetitive Peak Forward Current | $t_p = 1\text{ s}$ $\delta \leq 0.5$ | 3 | A |
| I_{FSM} | Surge non Repetitive Forward Current | $t_p = 10\text{ ms}$ | 10 | A |
| T_{stg} T_j | Storage and Junction Temperature Range | | - 65 to + 150 - 65 to + 125 | $^\circ\text{C}$ $^\circ\text{C}$ |
| T_L | Maximum Temperature for Soldering during 15s | | 260 | $^\circ\text{C}$ |

THERMAL RESISTANCE

| Symbol | Test Conditions | Value | Unit |
|---------------|-----------------|-------|--------------------|
| $R_{th(j-l)}$ | Junction-leads | 110 | $^\circ\text{C/W}$ |

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

| Symbol | Test Conditions | | Min. | Typ. | Max. | Unit |
|---------|----------------------------------|-----------------------|------|------|------|---------------|
| I_R^* | $T_j = 25\text{ }^\circ\text{C}$ | $V_R = 80\text{ V}$ | | | 200 | μA |
| V_F^* | $T_j = 25\text{ }^\circ\text{C}$ | $I_F = 10\text{ mA}$ | | | 0.32 | V |
| | $T_j = 25\text{ }^\circ\text{C}$ | $I_F = 100\text{ mA}$ | | | 0.42 | |
| | $T_j = 25\text{ }^\circ\text{C}$ | $I_F = 1\text{ A}$ | | | 1 | |

DYNAMIC CHARACTERISTICS

| Symbol | Test Conditions | | Min. | Typ. | Max. | Unit |
|--------|----------------------------------|--------------------|--------------------|------|------|-------------|
| C | $T_j = 25\text{ }^\circ\text{C}$ | $f = 1\text{ MHz}$ | $V_R = 0\text{ V}$ | | 120 | pF |
| | | | $V_R = 5\text{ V}$ | | 35 | |

* Pulse test: $t_p \leq 300\mu\text{s}$ $\delta < 2\%$.

Figure 1. Forward current versus forward voltage at low level (typical values).

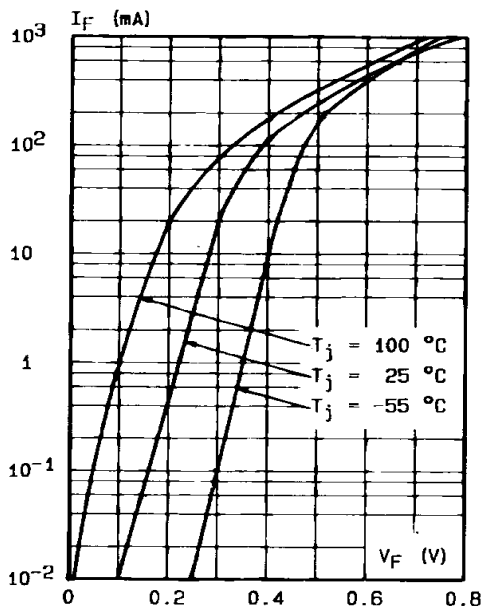


Figure 2. Forward current versus forward voltage at high level (typical values).

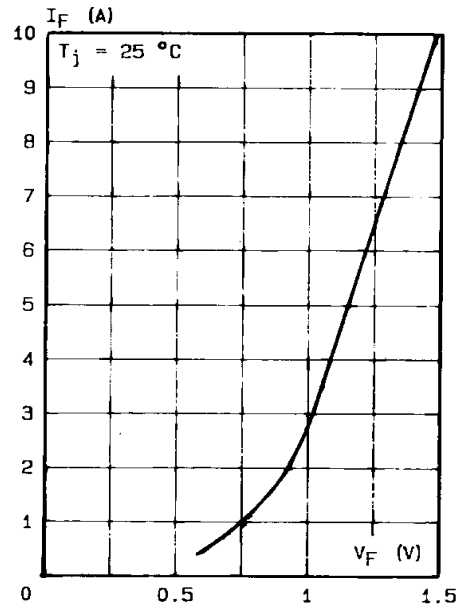


Figure 3. Reverse current versus junction temperature.

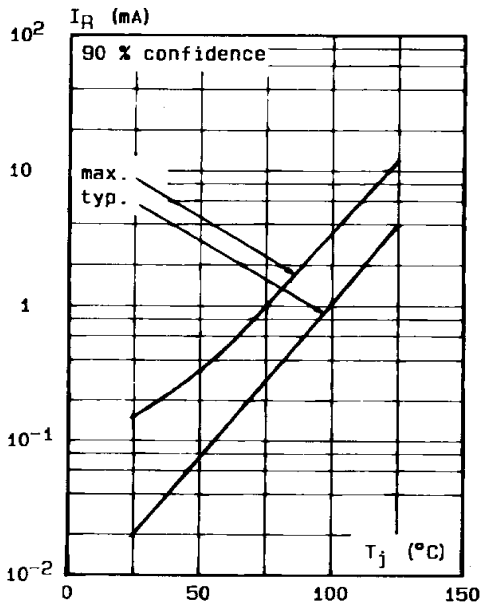


Figure 4. Reverse current versus V_{RRM} in per cent.

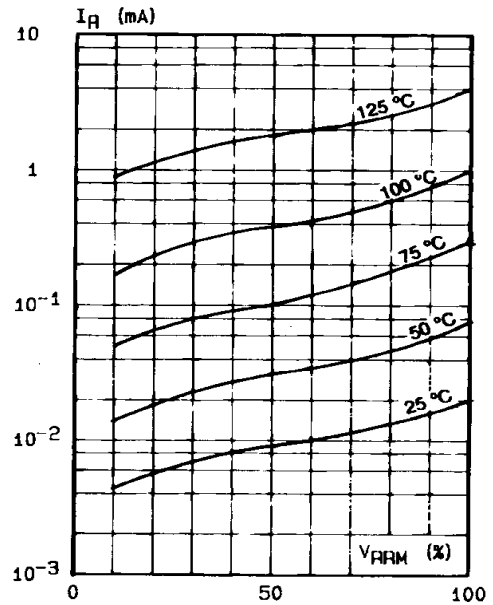


Figure 5. Capacitance C versus reverse applied voltage V_R (typical values).

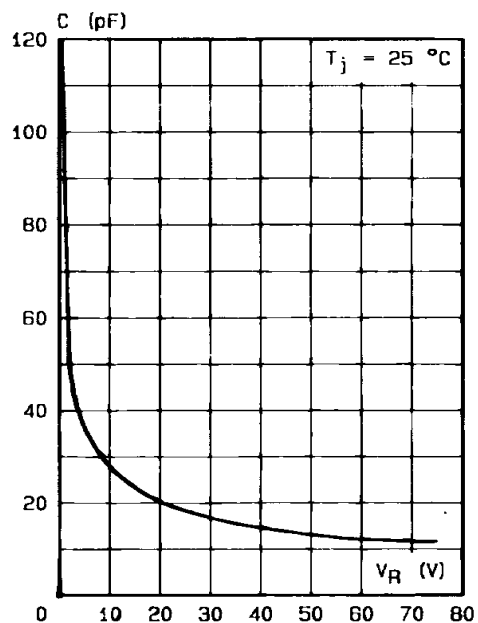


Figure 6. Surge non repetitive forward current for a rectangular pulse with $t \leq 10$ ms.

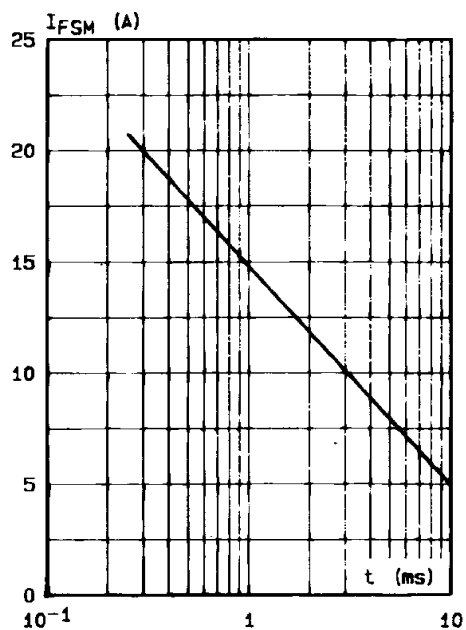
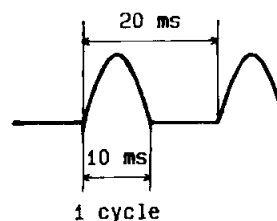
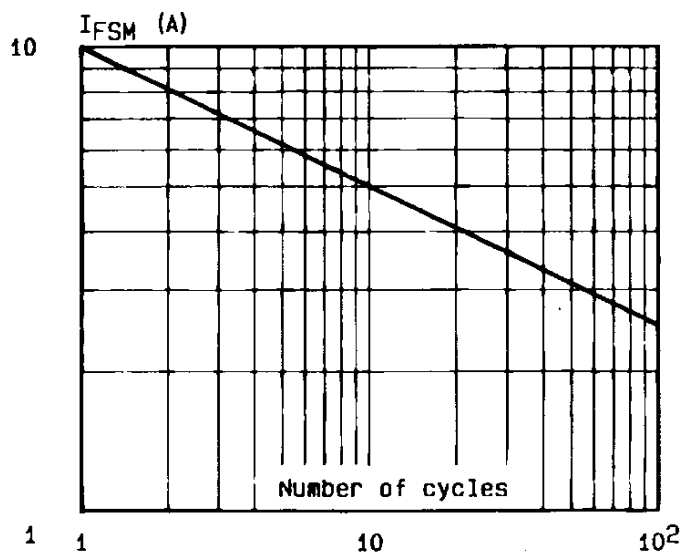
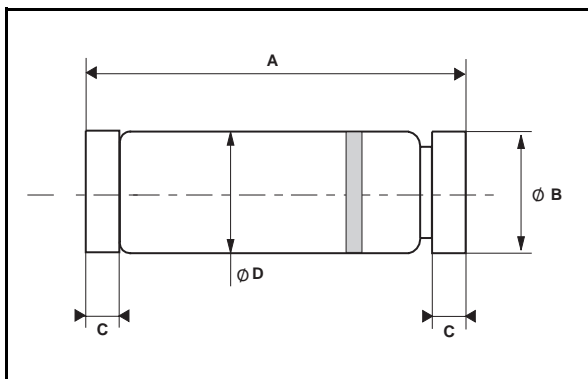


Figure 7. - Surge non repetitive forward current versus number of cycles.



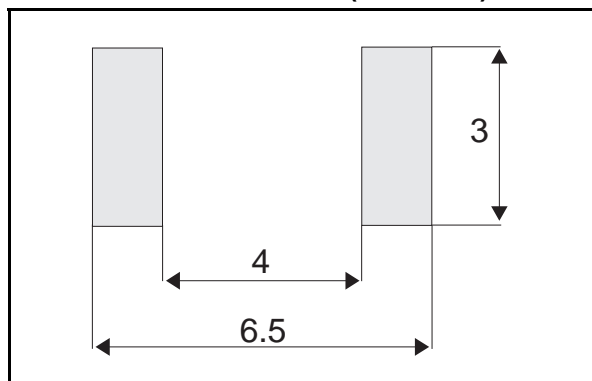
PACKAGE MECHANICAL DATA

MELF Glass



| REF. | DIMENSIONS | | | | | |
|------|-------------|------|------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 4.80 | | 5.20 | 0.189 | | 0.205 |
| Ø B | 2.50 | | 2.65 | 0.098 | | 0.104 |
| C | 0.45 | | 0.60 | 0.018 | | 0.024 |
| Ø D | | 2.50 | | | 0.098 | |

FOOT PRINT DIMENSIONS (Millimeter)



Marking: ring at cathode end.
Weight: 0.15g

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