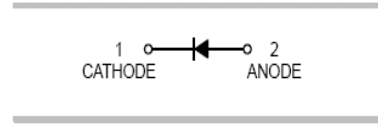




### FEATURES

- Low reverse leakage— $I_R=200\text{nA}(\text{Max.})$ .
- Very Low Capacitance— $1.0\text{pF} @20\text{V}$ .
- Extremely Low minority carrier lifetime.
- High reverse leakage— $70\text{V}(\text{min.})$



### APPLICATIONS

- For high-efficiency UHF and VHF detector applications.

**SOD-323**

### ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| MMDL770□ | 5H      | SOD-323      |

□: none is for Lead Free package;  
 “G” is for Halogen Free package.

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter                                   | Symbol          | Limits      | Unit                      |
|---|-----------------|-------------|---------------------------|
| DC Reverse Voltage                          | $V_R$           | 70          | V                         |
| Power Dissipation                           | $P_D$           | 200         | mW                        |
| Thermal resistance, junction to ambient air | $R_{\theta jA}$ | 635         | $^\circ\text{C}/\text{W}$ |
| Junction temperature                        | $T_j$           | 150         | $^\circ\text{C}$          |
| Storage temperature                         | $T_{STG}$       | -55 to +150 | $^\circ\text{C}$          |



### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter                     | Symbol      | Min. | Typ. | Max. | Unit | Conditions        |
|-------------------------------|-------------|------|------|------|------|-------------------|
| Reverse Breakdown Voltage     | $V_{(BR)R}$ | 70   |      |      |      | $I_R=10\mu A$     |
| Forward voltage               | $V_F$       |      | 0.7  | 1.0  | V    | $I_F=10mA$        |
| Reverse current               | $I_R$       |      | 9.0  | 200  | nA   | $V_R=35V$         |
| Capacitance between terminals | $C_T$       |      | 0.5  | 1.0  | pF   | $V_R=20V, f=1MHz$ |

### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

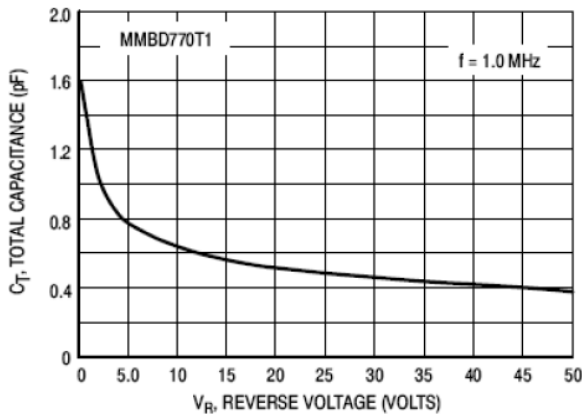


Figure 1. Total Capacitance

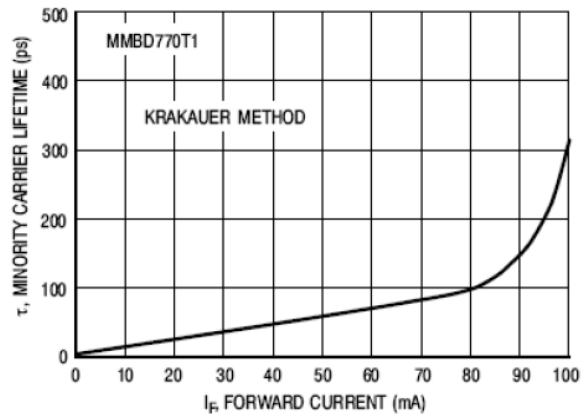


Figure 2. Minority Carrier Lifetime

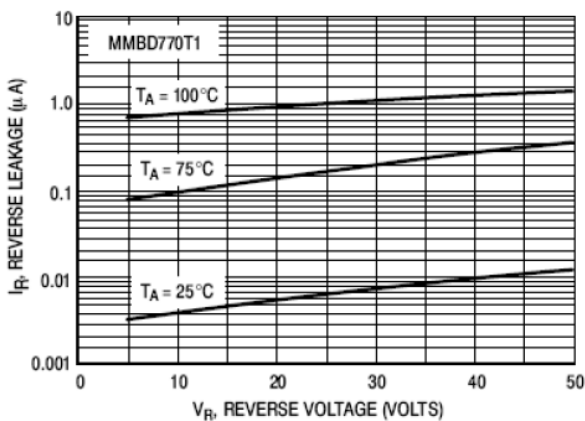


Figure 3. Reverse Leakage

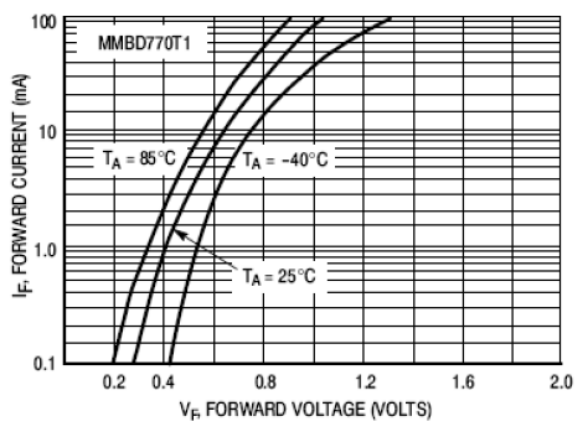


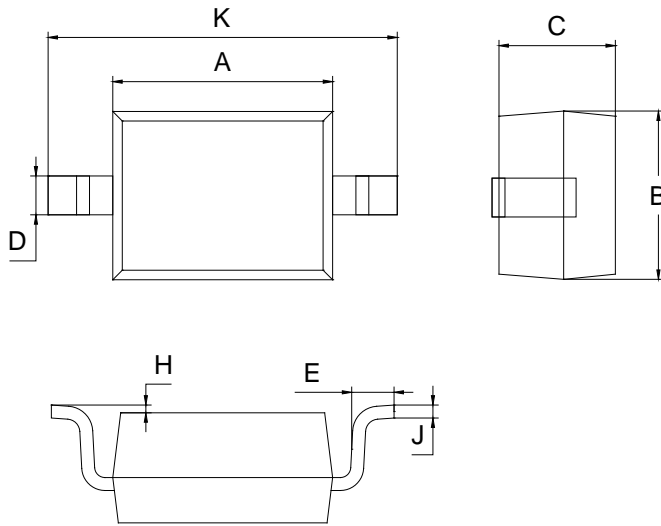
Figure 4. Forward Voltage



### PACKAGE OUTLINE

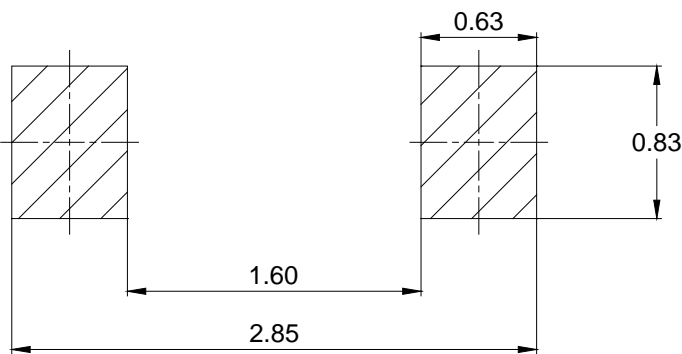
Plastic surface mounted package

SOD-323



| SOD-323              |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 1.60 | 1.80 |
| B                    | 1.20 | 1.40 |
| C                    | 0.80 | 0.90 |
| D                    | 0.25 | 0.35 |
| E                    | 0.22 | 0.42 |
| H                    | 0.02 | 0.10 |
| J                    | 0.05 | 0.15 |
| K                    | 2.55 | 2.75 |
| All Dimensions in mm |      |      |

### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

| Device  | Package | Shipping       |
|---------|---------|----------------|
| MMDL770 | SOD-323 | 3000/Tape&Reel |