

Surface Mount Switching Multi-Chip Diode Array

(Pb) Lead(Pb)-Free

Features:

- * Ultra High Speed Switching
- * Ultra-Small Surface Mount Package
- * For General Purpose Switching Applications
- * High Conductance Power Dissipation

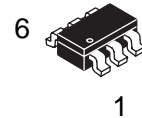
Mechanical Data:

- * Case : TSOP-6
- * Case Material : Molded Plastic. UL Flammability Classification Ration 94V-0
- * Moisture Sensitivity : Level 1 per J-STD-020C
- * Terminals : Solderable per MIL-STD-202, Method 208
- * Polarity : See Diagram

MULTI-CHIP DIODES

100m AMPERES

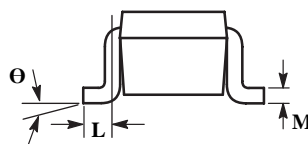
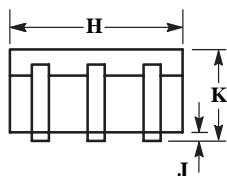
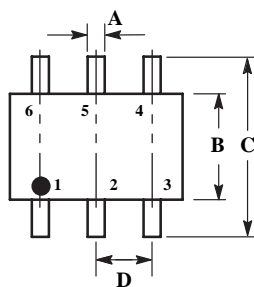
80 VOLTS



TSOP-6

TSOP-6 Outline Dimensions

Unit:mm



| TSOP-6 | | |
|--------|------|------|
| Dim | Min | Max |
| A | 0.25 | 0.50 |
| B | 1.30 | 1.70 |
| C | 2.50 | 3.00 |
| D | 0.85 | 1.05 |
| θ | 0° | 10° |
| H | 2.90 | 3.10 |
| J | 0.01 | 0.10 |
| K | 0.90 | 1.10 |
| L | 0.20 | 0.60 |
| M | 0.10 | 0.26 |

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

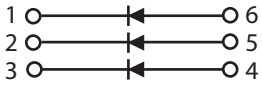
| Characteristic | Symbol | Value | Unit |
|---|-----------|-------------|------------------|
| Peak Reverse Voltage | V_{RM} | 80 | V |
| DC Reverse Voltage | V_R | 80 | V |
| Peak Forward Current | I_{FM} | 300 | mA |
| Average Rectified Output Current | I_O | 100 | mA |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{s}$ | I_{FSM} | 4.0 | A |
| Power Dissipation (Note 1) | P_D | 300 | mW |
| Operating Temperature Range | T_j | +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

Note 1 : Not to exceed 200mW per element.

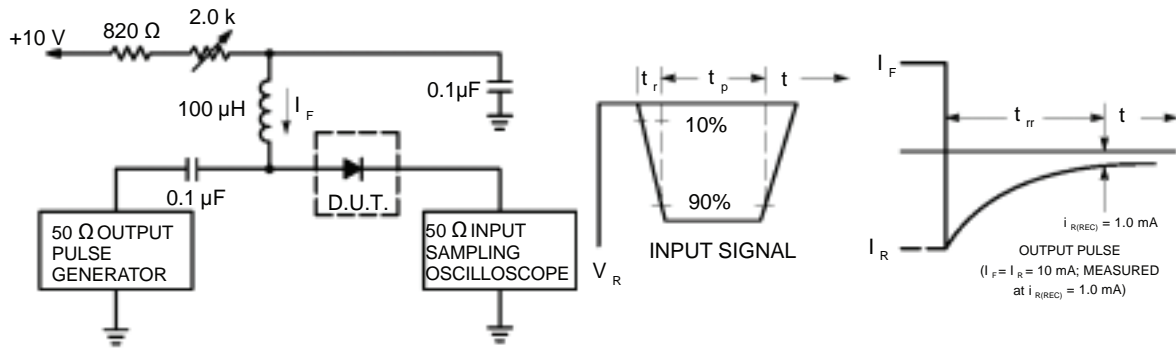
Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | Min | Max | Unit |
|---|----------|-----|-----|---------------|
| Forward Voltage $I_F = 100\text{mA}$ | V_F | - | 1.2 | V |
| Reverse Current $V_R = 70\text{V}$ | I_R | - | 0.1 | μA |
| Capacitance between terminals $V_R = 6\text{V}, f = 1.0\text{MHz}$ | C_T | - | 3.5 | pF |
| Reverse Recovery Time $V_R = 6\text{V}, I_F = 5\text{mA}$ | T_{rr} | - | 4.0 | ns |

Device Marking

| Item | Marking | Equivalent Circuit diagram |
|--------|---------|---|
| WIMN10 | N10 |  |

Typical Characteristics



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
 2. Input pulse is adjusted so $I_{R(\text{peak})}$ is equal to 10mA.
 3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH DIODE

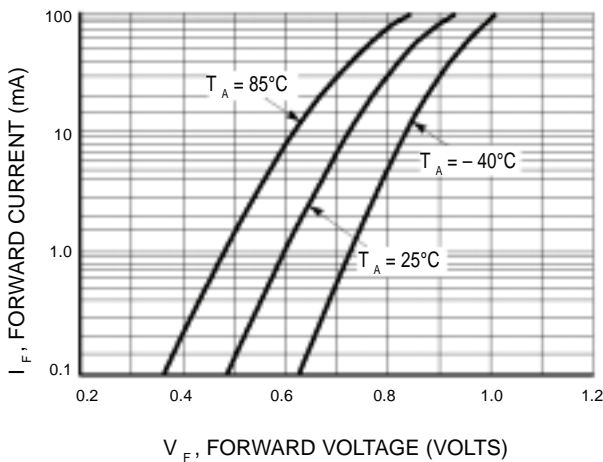


Figure 2. Forward Voltage

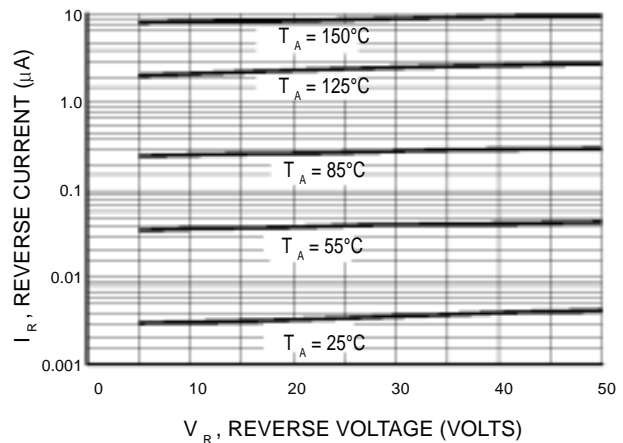


Figure 3. Leakage Current

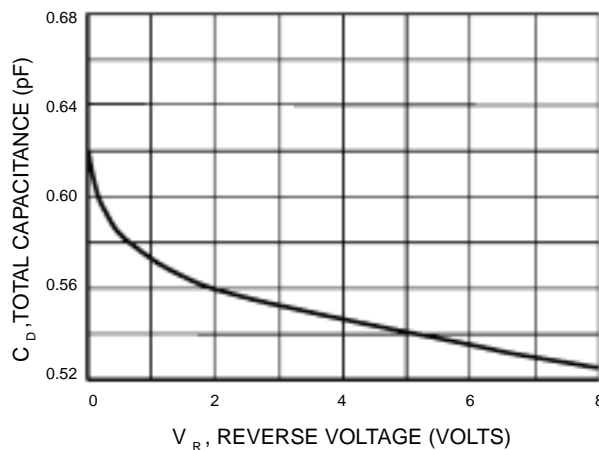


Figure 4. Capacitance