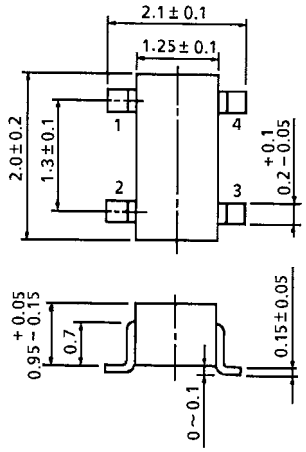
TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

# 1SS383

Low Voltage High Speed Switching

Unit: mm




1. ANODE 1
2. ANODE 2
3. CATHODE 2
4. CATHODE 1

USQ

| | |
|---|---|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 1-2U1A |

Weight: 0.006g

- Small package
- Composed of 2 independent diodes.
- Low forward voltage: $V_{F\ (3)}$ = 0.54V (typ.)
- Low reverse current: $I_R$ = 5μA (max)

## Maximum Ratings (Ta = 25°C)

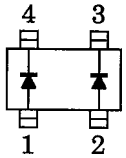
| Characteristic | Symbol | Rating | Unit |
|---|---|---|---|
| Maximum (peak) reverse Voltage | $V_{RM}$ | 45 | V |
| Reverse voltage | $V_R$ | 40 | V |
| Maximum (peak) forward current | $I_{FM}$ | 300 * | mA |
| Average forward current | $I_O$ | 100 * | mA |
| Surge current (10ms) | $I_{FSM}$ | 1 * | A |
| Power dissipation | P | 100 * | mW |
| Junction temperature | $T_j$ | 125 | °C |
| Storage temperature range | $T_{stg}$ | −55~125 | °C |
| Operating temperature range | $T_{opr}$ | −40~100 | °C |

*: Unit rating. Total rating = unit rating × 1.5

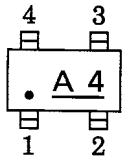
## Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Circuit | Test Condition | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|---|---|
| Forward voltage | $V_{F\ (1)}$ | — | $I_F$ = 1mA | — | 0.28 | — | V |
| | $V_{F\ (2)}$ | — | $I_F$ = 10mA | — | 0.36 | — | V |
| | $V_{F\ (3)}$ | — | $I_F$ = 100mA | — | 0.54 | 0.60 | V |
| Reverse current | $I_R$ | — | $V_R$ = 40V | — | — | 5 | μA |
| Total capacitance | $C_T$ | — | $V_R$ = 0, f = 1MHz | — | 18 | 25 | pF |

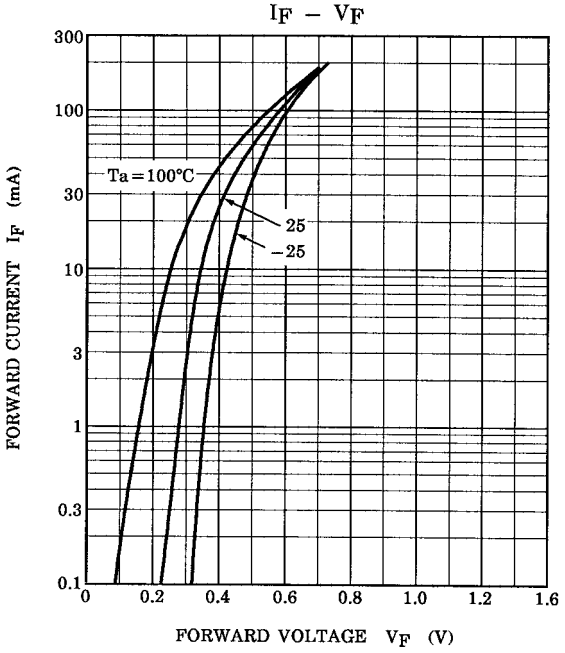
## Pin Assignment (Top View)



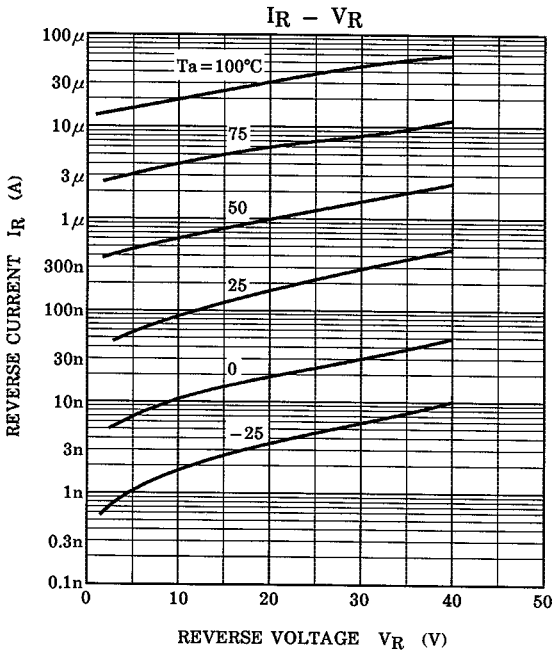

## Marking



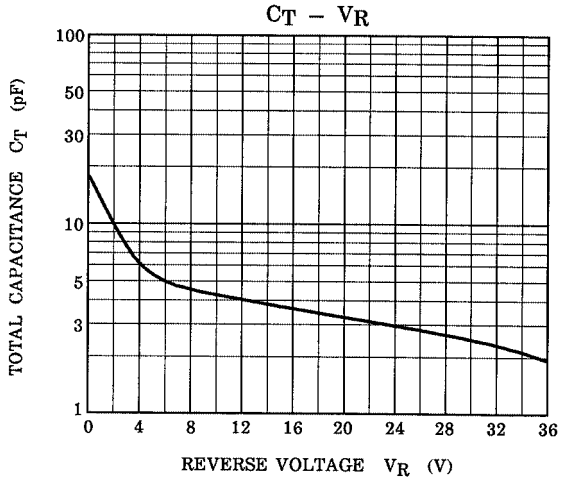
$I_F - V_F$




$I_R - V_R$




$C_T - V_R$



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