

SEMICONDUCTOR TECHNICAL DATA

KDS226

SILICON EPITAXIAL PLANAR DIODE

ULTRA HIGH SPEED SWITCHING APPLICATION.

FEATURES

· Small Package : SOT-23.

 \cdot Low Forward Voltag : V_F =0.9V(Typ.).

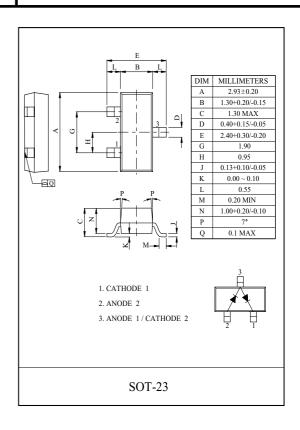
- Fast Reverse Recovery Time : t_{rr} =1.6ns(Typ.).

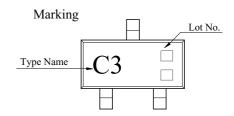
- Small Total Capacitance : C_T =0.9pF(Typ.).

MAXIMUM RATING (Ta=25)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--------------------------------|------------------|---------|------|
| Maximum (Peak) Reverse Voltage | V _{RM} | 85 | V |
| Reverse Voltage | V _R | 80 | V |
| Maximum (Peak) Forward Current | I_{FM} | 300 * | mA |
| Average Forward Current | I _O | 100 * | mA |
| Surge Current (10ms) | I _{FSM} | 2 * | A |
| Power Dissipation | P_{D} | 150 | mW |
| Junction Temperature | T _j | 150 | |
| Storage Temperature Range | T_{stg} | -55 150 | |

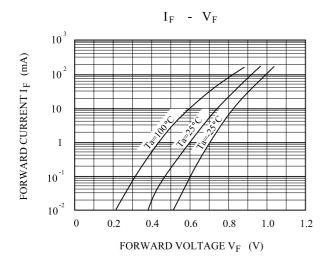
Note: *Unit Rating. Total Rating=Unit Rating x 0.7

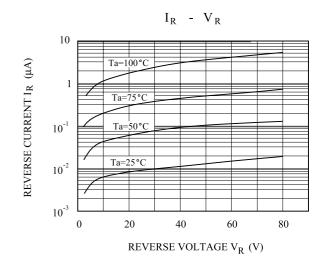


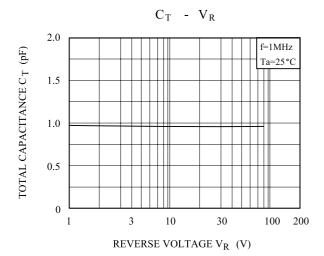


ELECTRICAL CHARACTERISTICS (Ta=25)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|-------------------|-----------------------|------|------|------|------|
| Forward Voltage | V _{F(1)} | I _F =1mA | - | 0.60 | - | |
| | $V_{F(2)}$ | I _F =10mA | - | 0.72 | - | V |
| | V _{F(3)} | I _F =100mA | - | 0.90 | 1.20 | |
| Reverse Current | I_R | V _R =80V | - | - | 0.5 | μA |
| Total Capacitance | C_{T} | $V_R=0$, $f=1$ MHz | - | 0.9 | 3.0 | pF |
| Reverse Recovery Time | t _{rr} | I _F =10mA | - | 1.6 | 4.0 | nS |







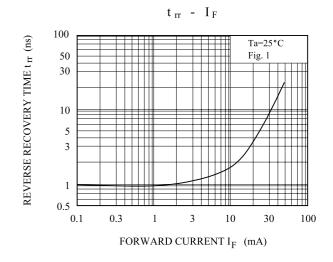
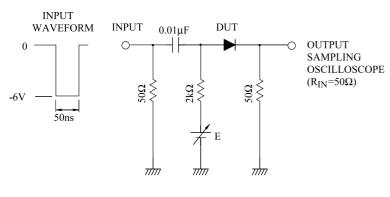
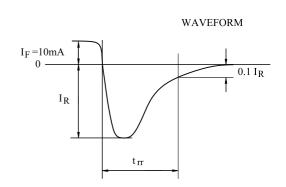


Fig. 1. REVERSE RECOVERY TIME(t_{rr}) TEST CIRCUIT





PULSE GENERATOR (R_{OUT} =50 Ω)