

SURFACE MOUNT

SWITCHING DIODE

VOLTAGE 40 Volts CURRENT 0.1 Ampere

RATING CHARACTERISTIC CURVES (ZPD15)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURRENT

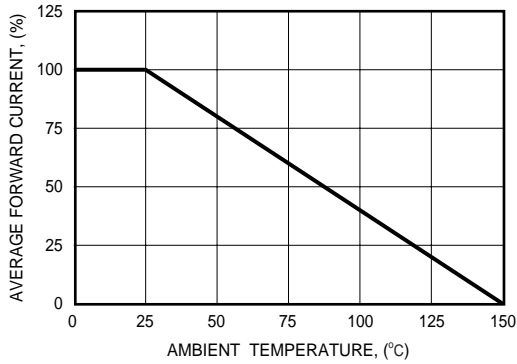


FIG. 2 - FORWARD CHARACTERISTICS

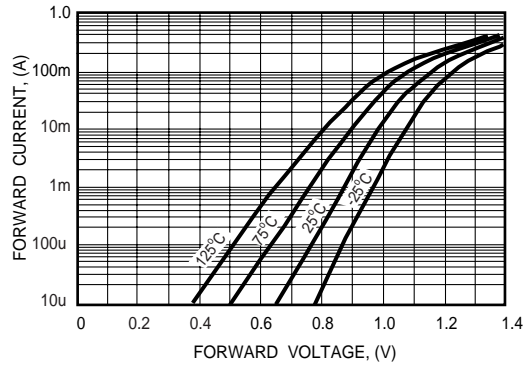


FIG. 3 - REVERSE CHARACTERISTICS

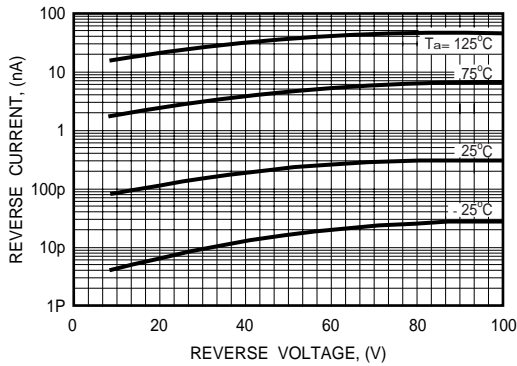


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

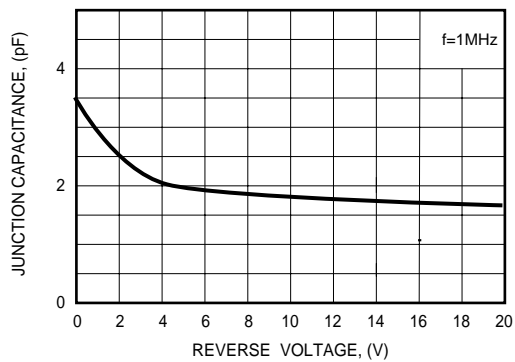


FIG. 5 - REVERSE RECOVERY TIME

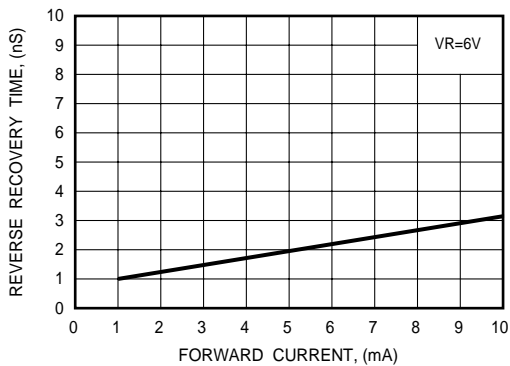
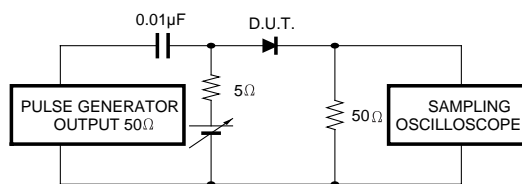


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT



SURFACE MOUNT

SWITCHING DIODE

VOLTAGE 40 Volts CURRENT 0.1 Ampere

APPLICATION

- * Ultra high speed switching

FEATURE

- * Small surface mounting type. (SC-76/SOD-323)
- * High speed. ($T_{RR}=1.5\text{nSec}$ Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 150mW.
- * Peak forward current is 200mA.

CONSTRUCTION

- * Silicon epitaxial planar

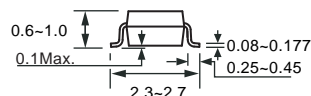
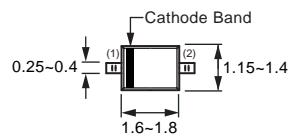
MARKING

- * 6D

CIRCUIT



SC-76/SOD-323



Dimensions in millimeters

SC-76/SOD-323

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	ZPD15	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	Volts
Maximum RMS Voltage	V_{RMS}	35	Volts
Maximum DC Blocking Voltage	V_{DC}	28	Volts
Maximum Average Forward Rectified Current	I_o	100	mAmps
Peak Forward Surge Current at 1Sec.	I_{FSM}	400	mAmps
Typical Junction Capacitance between Terminal (Note 1)	C_J	5.0	pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	4.0	nSec
Maximum Operating Temperature Range	T_J	+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	1SS380PT	UNITS
Maximum Instantaneous Forward Voltage at $I_F = 100\text{mA}$	V_F	1.2	Volts
Maximum Average Reverse Current at $V_R = 20\text{V}$	I_R	10	nAmps

- NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0.5 volts.
 2. Measured at applied forward current of 10mA and reverse voltage of 6.0 volts.
 3. ESD sensitive product handling required.

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