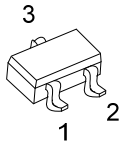
1SS184

DIODE

ULTRA HIGH-SPEED SWITCHING APPLICATIONS



SOT-23
(JEDEC TO-236)

■ DESCRIPTION

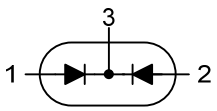
The UTC **1SS184** is a switching diode, it uses UTC's advanced technology to provide the customers with high reliability and ultra small mold type, etc.

The UTC **1SS184** is suitable for high speed switching applications, etc.

■ FEATURES

* High reliability
* Ultra small mold type
* Low forward voltage :V_F @ I_F=100mA =0.9V (Typ.)
* Fast Reverse Recovery Time: t_{rr}=1.6ns (Typ.)
* Small Total Capacitance :C_T=0.9pF (Typ.)

■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
1SS184L-AE3-R	1SS184G-AE3-R	SOT-23	A	A	K	Tape Reel

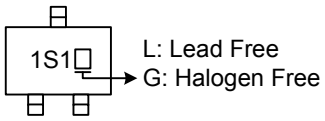
Note: Pin Assignment: A: Anode K: Cathode

1SS184G-AE3-R

(1)Packing Type
(2)Package Type
(3)Green Package

(1) R: Tape Reel
(2) AE3: SOT-23
(3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

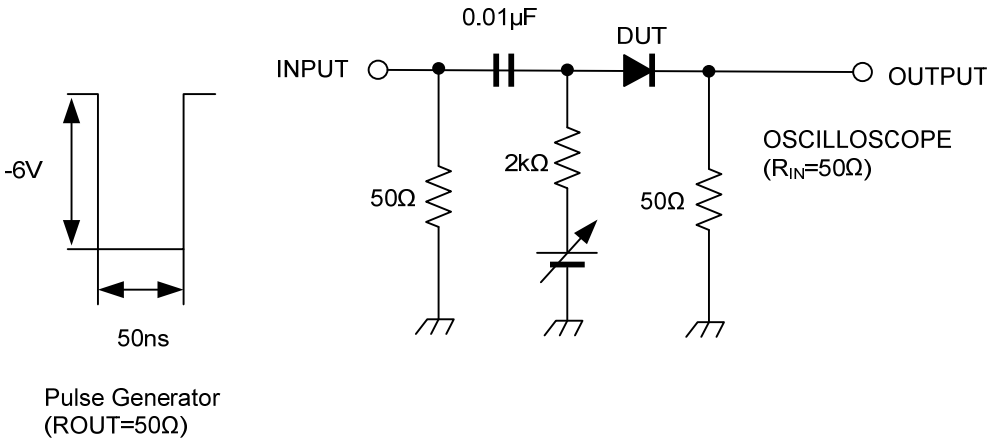
PARAMETER	SYMBOL	RATINGS	UNIT
Reverse Voltage (Repetitive Peak)	V_{RM}	85	V
Reverse Voltage (DC)	V_R	80	V
Forward Current	I_{FM}	300	mA
Average Rectified Forward Current	I_O	100	mA
Surge Current (t=1s)	I_{surge}	2	mA
Junction Temperature	T_J	+125	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

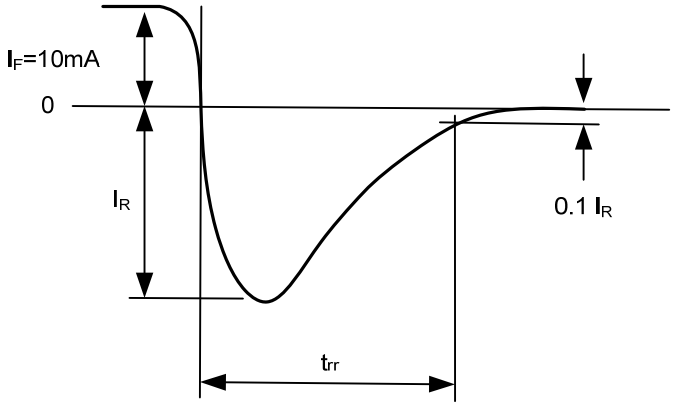
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	V_R	I_R=100μA	80			V
Forward Voltage	V_F	I_F=1mA		0.6		V
		I_F=10mA		0.72		V
		I_F=100mA		0.9	1.2	V
Reverse Current	I_R	V_R=30V			0.1	μA
		V_R=80V			0.5	μA
Capacitance Between Terminals	C_T	V_R=0V, f=1MHz		0.9	3	pF

■ REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT



Input Waveform



Output Waveform

■ TYPICAL CHARACTERISTICS