



1SS184

DIODE

ULTRA HIGH-SPEED SWITCHING APPLICATIONS

DESCRIPTION

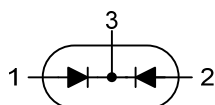
The UTC **1SS184** is a switching diode, it uses UTC's advanced technology to provide the customers with high reliability and ultra small mold type, etc.

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

FEATURES

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

SYMBOL



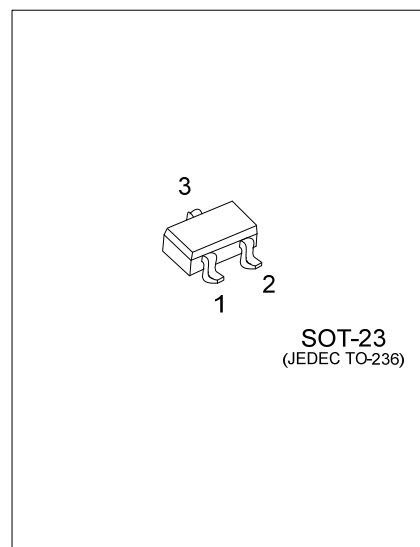
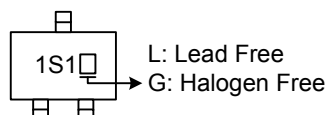
ORDERING INFORMATION

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
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MARKING



SOT-23
(JEDEC TO-236)

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

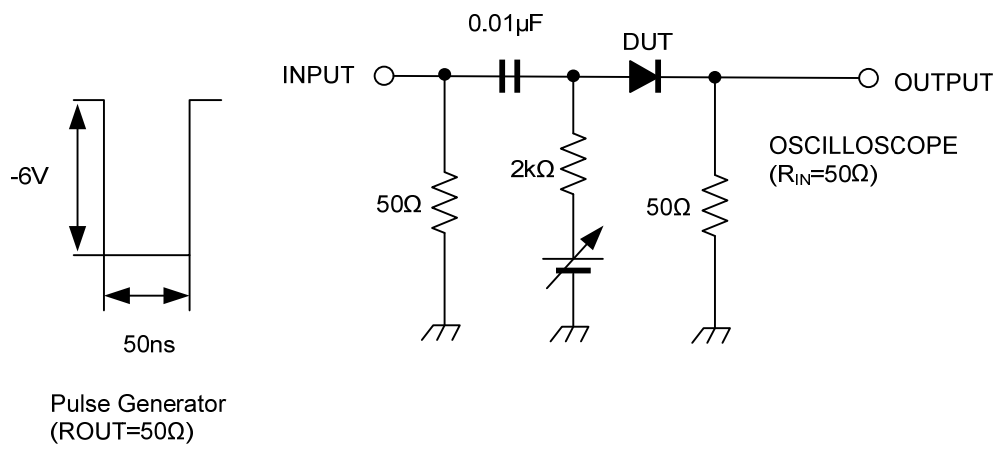
PARAMETER	SYMBOL	RATINGS	UNIT
Reverse Voltage (Repetitive Peak)	V_{RM}	85	V
Reverse Voltage (DC)	V_R	80	V
Forward Current	I_{FM}	300	mA
Average Rectified Forward Current	I_O	100	mA
Surge Current ($t=1\text{s}$)	I_{surge}	2	mA
Junction Temperature	T_J	+125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}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

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.

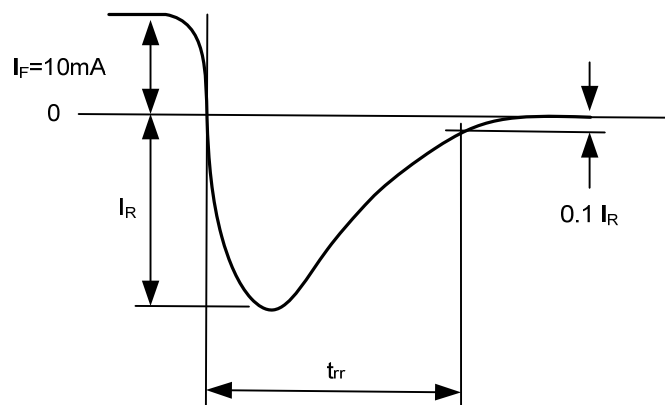
■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

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

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

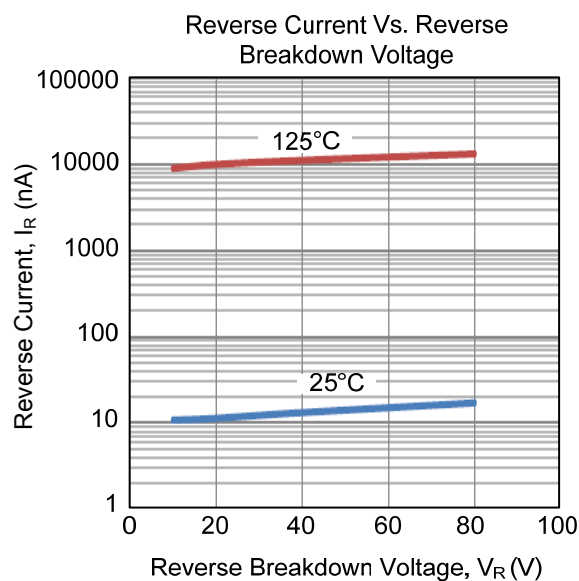
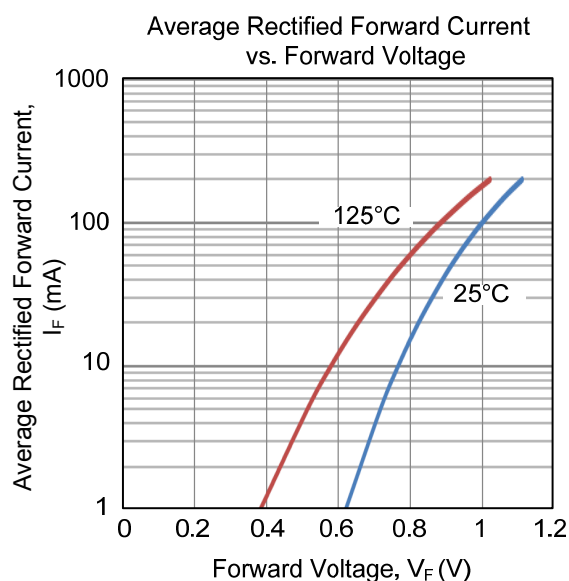


Input Waveform



Output Waveform

■ TYPICAL CHARACTERISTICS



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