SST175
P-CHANNEL JFET

Linear Systems replaces discontinued Siliconix SST175

The SST175 is a single P-Channel JFET switch

This p-channel analog switch is designed to provide low on-resistance and fast switching. When used in combination with the complimentary J/SST111 n-channel family, the SST175 simplifies series-shunt switching applications

SST175 Benefits:

- Low Error Voltage
- High-Speed Analog Circuit Performance
- Negligible "Off-Error," Excellent Accuracy
- Good Frequency Response
- Eliminates Additional Buffering

SST175 Applications:

- Analog Switches
- Choppers
- Sample-and-Hold
- Normally "On" Switches
- Current Limiters

FEATURES	
DIRECT REPLACEMENT FOR SILICONIX SST175	
LOW ON RESISTANCE	$r_{DS(on)} \leq 125\Omega$
LOW GATE OPERATING CURRENT	$I_{D(off)} = 10pA$
FAST SWITCHING	$t_{(ON)}$ 25ns
ABSOLUTE MAXIMUM RATINGS @ 25°C (unless otherwise noted)	
Maximum Temperatures	
Storage Temperature	-55°C to +150°C
Operating Junction Temperature	-55°C to +135°C
Maximum Power Dissipation	
Continuous Power Dissipation	350mW
MAXIMUM CURRENT	
Gate Current (Note 1)	$I_G = -50mA$
MAXIMUM VOLTAGES	
Gate to Drain Voltage	$V_{GDS} = 30V$
Gate to Source Voltage	$V_{GSS} = 30V$

SST175 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	TYP.	MAX	UNITS	CONDITIONS
BV_{GSS}	Gate to Source Breakdown Voltage	30	--	--	V	$I_G = -1\mu A$, $V_{DS} = 0V$
$V_{GS(F)}$	Gate to Source Forward Voltage	--	-0.7	--		$I_G = -1mA$, $V_{DS} = 0V$
$V_{GS(off)}$	Gate to Source Cutoff Voltage	3	--	6		$V_{DS} = -15V$, $I_D = -10nA$
I_{DSS}	Drain to Source Saturation Current	-7	--	-70		$V_{DS} = -15V$, $V_{GS} = 0V$
I_{GSS}	Gate Reverse Current	--	0.01	1	nA	$V_{GS} = 20V$, $V_{DS} = 0V$
I_G	Gate Operating Current	--	0.01	--		$V_{DG} = -15V$, $I_D = -1mA$
$I_{D(off)}$	Drain Cutoff Current	--	-0.01	-1		$V_{DS} = -15V$, $V_{GS} = 0V$
$r_{DS(on)}$	Drain to Source On Resistance	--	--	125	Ω	$V_{GS} = 0V$, $V_{DS} = -0.1V$

Click To Buy

SST175 SWITCHING CHARACTERISTICS @ 25°C (unless otherwise noted)

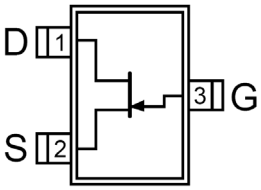
SYMBOL	CHARACTERISTIC		UNITS	CONDITIONS
$t_{d(on)}$	Turn On Time	10	ns	$V_{GS}(L) = 0V$ $V_{GS}(H) = 10V$ See Switching Circuit
t_r	Turn On Rise Time	15		
$t_{d(off)}$	Turn Off Time	10		
t_f	Turn Off Fall Time	20		

Note 1 - Absolute maximum ratings are limiting values above which SST175 serviceability may be impaired.

SST175 SWITCHING CIRCUIT PARAMETERS

V_{DD}	-6V
V_{GG}	12V
R_L	750Ω
R_G	220Ω
$I_{D(on)}$	-7mA

SOT-23 (Top View)

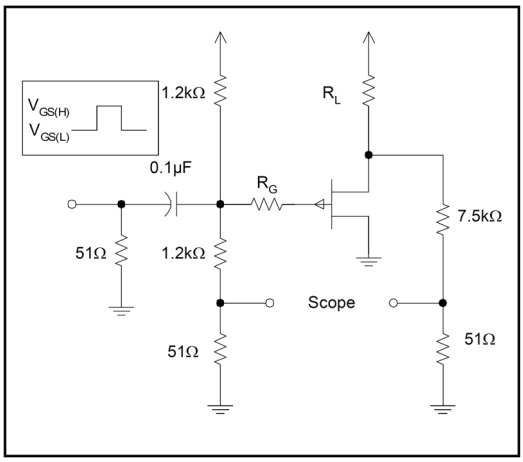


Available Packages:

SST175 in SOT-23
SST175 in bare die.

Please contact Micross for full package and die dimensions

SWITCHING CIRCUIT



Micross Components Europe

Tel: +44 1603 788967
Email: chipcomponents@micross.com
Web: http://www.micross.com/distribution

Information furnished by Linear Integrated Systems and Micross Components is believed to be accurate and reliable. However, no responsibility is assumed for its use; nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Linear Integrated Systems.