

SSTX404S

## Technical Data Data Sheet N2115, Rev. A

SSTX404S NPN General Purpose Amplifier





## Features

- Low saturation Voltage(Transistor) :V<sub>CE(sat)</sub>=0.3V(Max.);I<sub>C</sub>=150mA,I<sub>B</sub>=15mA Fast Reverse Recovery Time(Diode)
- Capable of 350mWatts of Power Dissipation
- Operating and Storage Junction Temperatures: -55℃ to 150℃
- Surface Mount SOT-23 Package
- RoHS compliant / Green EMC
- Collector current: IC=0.6A

## **Schematic & Pin Configuration**



1. EMITTER/ANODE 2. BASE 3. COLLECTOR/CATHODE

## **Mechanical Characteristics**

- Case: SOT-23, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Mounting Position: Any

## Maximum Ratings@TA=25°C unless otherwise specified

#### TRANSISTOR(Q1)

Characteristic	Symbol	Limits	Unit
Collector-Base Voltage	V <sub>CBO</sub>	75	V
Emitter-Base Voltage	V <sub>EBO</sub>	6	V
Collector Current	lc	0.6	А

#### DIODE(D1)

Characteristic	Symbol	Limits	Unit
Maximum (peak) Forward Current	I <sub>FM</sub>	300	mA
Average Forward Current	lo	100	mA
Surge Current (100uS)	I <sub>FSM</sub>	2	А

COMMON

Characteristic	Symbol	Limits	Unit
Maximum Output (Pin1-Pin3)Voltage	Vo	40	V
Power Dissipation	Pc	350	mW
Junction Temperature Range	Tj	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~150	°C

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#### SSTX404S

## RoHS HF

### Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

#### TRANSISTOR(Q1)

Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Collector-base breakdown voltage	Vсво	I <sub>C</sub> =10μΑ, I <sub>E</sub> =0	60			V
Emitter-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> =10μΑ, I <sub>C</sub> =0	5			V
Collector cutoff current	Ісво	V <sub>CB</sub> =60V, I <sub>E</sub> =0			10	nA
Emitter cut-off current	Іево	V <sub>EB</sub> =3V,I <sub>C</sub> =0			10	nA
		h <sub>FE(1)</sub> I <sub>C</sub> =0.1mA,V <sub>CE</sub> =10V*	35			
	h <sub>FE</sub>	h <sub>FE(2)</sub> I <sub>C</sub> =1mA,V <sub>CE</sub> =10V*	50			
DC current gain		h <sub>FE(3)</sub> I <sub>C</sub> =10mA,V <sub>CE</sub> =10V*	75			
		h <sub>FE(4)</sub> I <sub>C</sub> =150mA,V <sub>CE</sub> =10V*	100		300	
		h <sub>FE(5)</sub> I <sub>C</sub> =500mA,V <sub>CE</sub> =10V*	40			
Collector omitter acturation voltage	Markan	I <sub>C</sub> =150mA,I <sub>B</sub> =15mA*			0.3	V
Collector-enfilter saturation voltage	V CE(sat)	I <sub>C</sub> =500mA,I <sub>B</sub> =50mA*			1	v
Pass amitter acturation coltage	V	I <sub>C</sub> =150mA,I <sub>B</sub> =15mA*	0.6		1.2	V
Dase-emilier saturation sollage	V BE(sat)	I <sub>C</sub> =500mA,I <sub>B</sub> =50mA*			2.0	v
Input Capacitance	Cib	V <sub>EB</sub> =0.5V,I <sub>C</sub> =0,f=1.0MHZ		15		pF

 $^{\star}\,$  Measured under pulsed conditions, Pulse width < 300  $\mu s,\,$  duty cycle < 2%

#### DIODE(D1)

Characteristics	Symbol	Condition	Min.	Тур.	Max.	Units
Forward Voltage Drop	V <sub>F1</sub>	I <sub>F</sub> =1mA		0.61		
		I <sub>F</sub> =10mA		0.74		V
		I <sub>F</sub> =100mA		0.92	1.2	

#### COMMON

Characteristics	Symbol	Condition	Min.	Тур.	Max.	Units
Output Voltage	Vo	I <sub>0</sub> =1mA, I <sub>Β</sub> =0	40			V
Output Leakage Current	lo(off)	V <sub>0</sub> =40V, V <sub>EB</sub> =3V			0.5	uA
Output Capacitance	C <sub>Ob</sub>	V <sub>R</sub> =10V,I <sub>E</sub> =0,f=1MHZ		6.5		рF

## **Ordering Information**

Device	Package	Shipping	Tape wide	Emboss pitch	
SSTX404S	SOT-23	3000 pcs / reel	8mm	4mm	

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

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## Marking Diagram



Where XY is date code

E7 X Y = Marking code. = Month code = Lot code

Х	А	В	С	D	E	F	G	н	J	к	L	М
Month code	January	February	March	April	May	June	July	August	September	October	November	December
Y Lot code	0	1	2	3	4	5	6	7	8	9	-	-

## **Mechanical Dimensions SOT-23**







0)(115.0)	Millimeters					
SYMBOL	MIN.	MAX.				
А	2.800	3.040				
В	2.100	2.640				
С	1.200	1.400				
D	0.890	1.030				
E	1.780	2.050				
F	0.450	0.600				
G	0.013	0.100				
Н	0.900	1.110				
J	0.090	0.180				
К	0.370	0.510				



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# RoHS **HF**

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