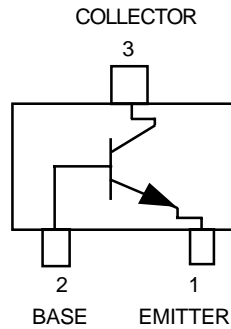
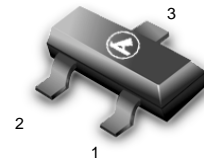


# NPN RF Amplifier Transistor

## Surface Mount



**MSC3130T1**



CASE 318D-03, STYLE 1  
SC-59

### MAXIMUM RATINGS (T<sub>A</sub> = 25 °C)

Rating	Symbol	Value	Unit
Collector-Base Voltage	V <sub>CBO</sub>	15	Vdc
Collector-Emitter Voltage	V <sub>CEO</sub>	10	Vdc
Emitter-Base Voltage	V <sub>EBO</sub>	3.0	Vdc
Collector Current - Continuous	I <sub>C</sub>	50	mAdc

### THERMAL CHARACTERISTICS

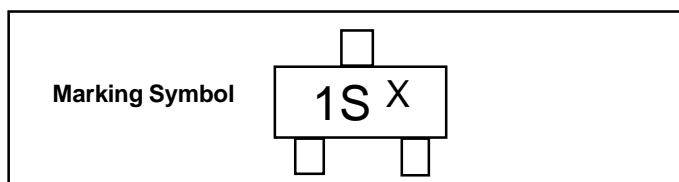
Characteristic	Symbol	Max	Unit
Power Dissipation	P <sub>D</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25 °C)

Characteristic	Symbol	Min	Max	Unit
Collector Cutoff Current (V <sub>CB</sub> = 10 Vdc, I <sub>E</sub> = 0)	I <sub>CBO</sub>	—	1.0	μAdc
Collector-Emitter Breakdown Voltage (I <sub>C</sub> = 2.0 mAdc, I <sub>B</sub> = 0)	V <sub>CEO</sub>	10	—	Vdc
Emitter-Base Breakdown Voltage (I <sub>E</sub> = 10 μAdc, I <sub>C</sub> = 0)	V <sub>EBO</sub>	3.0	—	Vdc
DC Current Gain <sup>(1)</sup> (V <sub>CE</sub> = 4.0 Vdc, I <sub>C</sub> = 5.0 mAdc)	h <sub>FE</sub>	75	400	—
Collector-Emitter Saturation Voltage (I <sub>C</sub> = 20 mAdc, I <sub>B</sub> = 4.0 mAdc)	V <sub>CE(sat)</sub>	—	0.5	Vdc
Current-Gain-Bandwidth Product (V <sub>CB</sub> = 4.0 Vdc, I <sub>E</sub> = -5.0 mAdc)	tf <sub>T</sub>	1.4	2.5	GHz

1. Pulse Test: Pulse Width ≤ 300 μs, D.C. ≤ 2%.

### DEVICE MARKING



The "X" represents a smaller alpha digit Date Code. The Date Code indicates the actual month in which the part was manufactured.