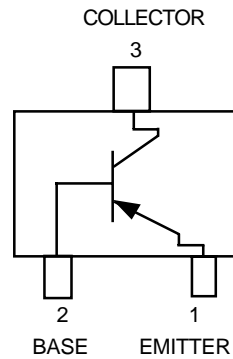


# PNP General Purpose Amplifier Transistor Surface Mount

**MSB709-RT1**



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

Rating	Symbol	Value	Unit
Collector-Base Voltage	V <sub>(BR)CBO</sub>	-60	Vdc
Collector-Emitter Voltage	V <sub>(BR)CEO</sub>	-45	Vdc
Emitter-Base Voltage	V <sub>(BR)EBO</sub>	-7.0	Vdc
Collector Current - Continuous	I <sub>C</sub>	-100	mAdc
Collector Current - Peak	I <sub>C(P)</sub>	-200	mAdc

### THERMAL CHARACTERISTICS

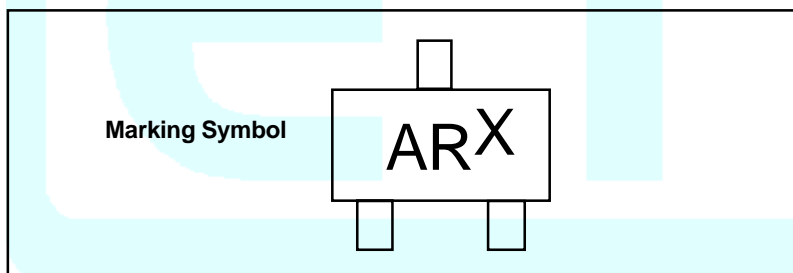
Characteristic	Symbol	Max	Unit
Power Dissipation	P <sub>D</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C

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

Characteristic	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I <sub>C</sub> = -2.0mAdc, I <sub>B</sub> = 0)	V <sub>(BR)CEO</sub>	-45	—	Vdc
Collector-Base Breakdown Voltage (I <sub>C</sub> = -10μAdc, I <sub>E</sub> = 0)	V <sub>(BR)CBO</sub>	-60	—	Vdc
Emitter-Base Breakdown Voltage (I <sub>E</sub> = -10μAdc, I <sub>C</sub> = 0)	V <sub>(BR)EBO</sub>	-7.0	—	Vdc
Collector-Base Cutoff Current (V <sub>CB</sub> = -45Vdc, I <sub>E</sub> = 0)	I <sub>CBO</sub>	—	-0.1	μAdc
Collector-Emitter Cutoff Current (V <sub>CE</sub> = -10Vdc, I <sub>B</sub> = 0)	I <sub>CEO</sub>	—	-100	nAdc
DC Current Gain <sup>(1)</sup> (V <sub>CE</sub> = -10Vdc, I <sub>C</sub> = -2.0mAdc)	h <sub>FE1</sub>	210	340	—
Collector-Emitter Saturation Voltage (I <sub>C</sub> = -100mAdc, I <sub>B</sub> = -10mAdc)	V <sub>CE(sat)</sub>	—	-0.5	Vdc

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.