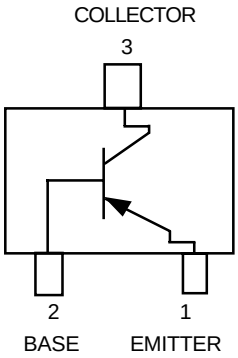
ETL SEMICONDUCTOR

PNP General Purpose Amplifier Transistor Surface Mount

MSB709-RT1





CASE 318D–03, STYLE1
SC–59

MAXIMUM RATINGS (T_A = 25 °C)

Rating	Symbol	Value	Unit
Collector-Base Voltage	$V_{(BR)CBO}$	–60	Vdc
Collector-Emitter Voltage	$V_{(BR)CEO}$	–45	Vdc
Emitter-Base Voltage	$V_{(BR)EBO}$	–7.0	Vdc
Collector Current - Continuous	I_C	–100	mAdc
Collector Current - Peak	$I_{C(P)}$	–200	mAdc

THERMAL CHARACTERISTICS

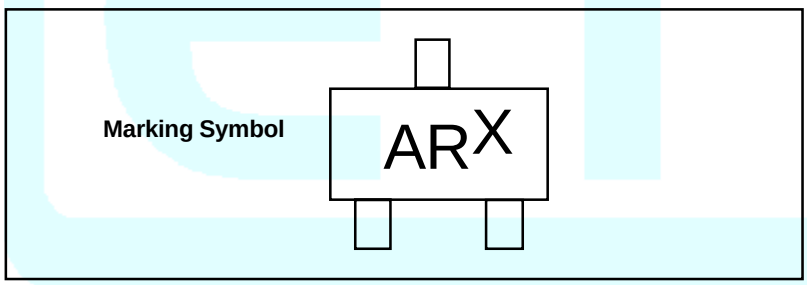
Characteristic	Symbol	Max	Unit
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	–55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

Characteristic	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I_C=–2.0mAdc,I_B=0)	$V_{(BR)CEO}$	–45	—	Vdc
Collector-Base Breakdown Voltage (I_C=–10μAdc,I_E=0)	$V_{(BR)CBO}$	–60	—	Vdc
Emitter-Base Breakdown Voltage (I_E =–10μAdc,I_E=0)	$V_{(BR)EBO}$	–7.0	—	Vdc
Collector-Base Cutoff Current (V_{CB} =–45Vdc, I_E=0)	I_{CBO}	—	–0.1	μAdc
Collector-Emitter Cutoff Current (V_{CE}=–10Vdc, I_B=0)	I_{CEO}	—	–100	nAdc
DC Current Gain (1) (V_{CE}=–10Vdc, I_C = –2.0mAdc)	h_{FE1}	210	340	—
Collector-Emitter Saturation Voltage (I_C = –100mAdc, I_B=–10mAdc)	$V_{CE(sat)}$	—	–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.

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