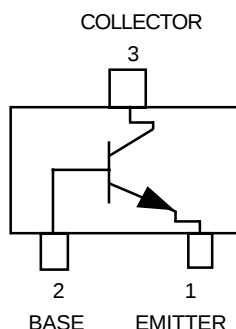


NPN General Purpose Amplifier Transistors Surface Mount



MSD601-RT1
MSD601-ST1



CASE 318D-03, STYLE1
SC-59

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

Rating	Symbol	Value	Unit
Collector-Base Voltage	$V_{(BR)CBO}$	60	Vdc
Collector-Emitter Voltage	$V_{(BR)CEO}$	50	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

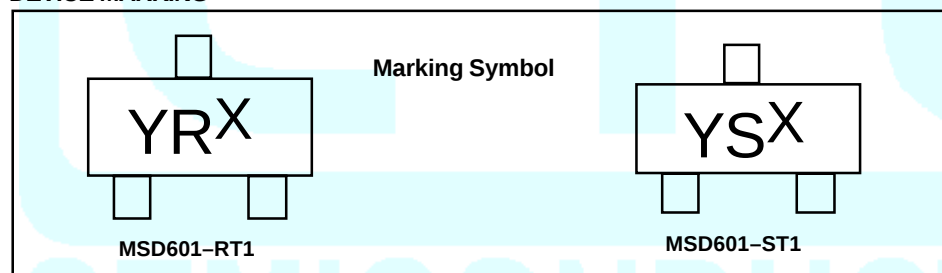
Characteristic	Symbol	Max	Unit
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Characteristic	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage ($I_C = 2.0 \text{ mAdc}$, $I_B = 0$)	$V_{(BR)CEO}$	50	—	Vdc
Collector-Base Breakdown Voltage ($I_C = 10 \text{ }\mu\text{Adc}$, $I_E = 0$)	$V_{(BR)CBO}$	60	—	Vdc
Emitter-Base Breakdown Voltage ($I_E = 10 \text{ }\mu\text{Adc}$, $I_C = 0$)	$V_{(BR)EBO}$	7.0	—	Vdc
Collector-Base Cutoff Current ($V_{CB} = 45 \text{ Vdc}$, $I_E = 0$)	I_{CBO}	—	0.1	μAdc
Collector-Emitter Cutoff Current ($V_{CE} = 10 \text{ Vdc}$, $I_B = 0$)	I_{CEO}	—	100	nAdc
DC Current Gain ⁽¹⁾				—
($V_{CE} = 10 \text{ Vdc}$, $I_C = 2.0 \text{ mAdc}$)	MSD601-RT1	h_{FE1}	210	340
	MSD601-ST1		290	460
($V_{CE} = 2.0 \text{ Vdc}$, $I_C = 100 \text{ mAdc}$)		h_{FE2}	90	—
Collector-Emitter Saturation Voltage ($I_C = 100 \text{ mAdc}$, $I_B = 10 \text{ mAdc}$)	$V_{CE(sat)}$	—	0.5	Vdc

1. Pulse Test: Pulse Width $\leq 300 \text{ }\mu\text{s}$, D.C. $\leq 2\%$.

DEVICE MARKING



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