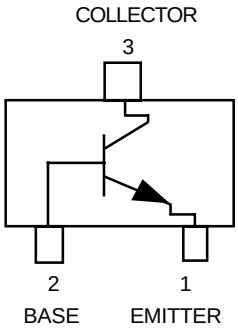
ETL SEMICONDUCTOR

NPN General Purpose Amplifier Transistors Surface Mount

MSD601–RT1
MSD601–ST1



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	$V_{(BR)CEO}$	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

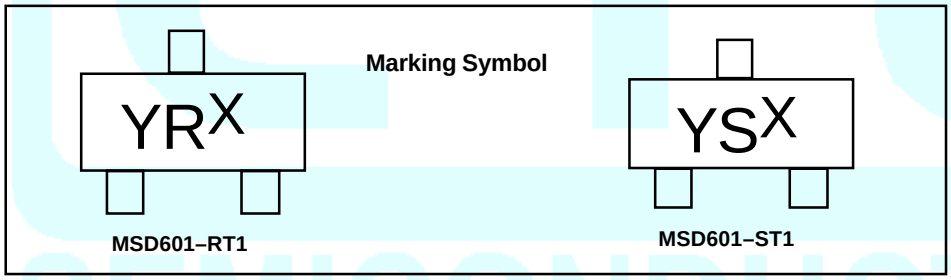
Characteristic	Symbol	Max	Unit
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	–55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

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