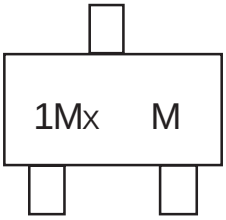
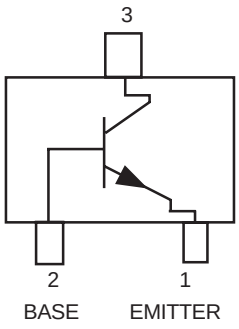
NPN Low Voltage Output Amplifiers - Surface Mount

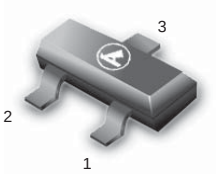
MSD1328–RT1
MSD1328–ST1

MARKING DIAGRAM



x = R for RT1
S for ST1
M = Date Code





SC–59 SUFFIX
CASE 318D

MAXIMUM RATINGS (T_A = 25 °C)

Rating	Symbol	Value	Unit
Collector–Base Voltage	$V_{(BR)CBO}$	25	Vdc
Collector–Emitter Voltage	$V_{(BR)CEO}$	20	Vdc
Emitter–Base Voltage	$V_{(BR)EBO}$	12	Vdc
Collector Current – Continuous	I_C	500	mAdc
Collector Current – Peak	$I_{C(P)}$	1000	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	Symbo	IMin	Max	Unit
Collector–Emitter Breakdown Voltage (I_C = 1.0 mAdc, I_B = 0)	$V_{(BR)CEO}$	20	–	Vdc
Collector–Base Breakdown Voltage (I_C = 10 μAdc, I_E = 0)	$V_{(BR)CBO}$	25	–	Vdc
Emitter–Base Breakdown Voltage (I_E = 10 μAdc, I_E = 0)	$V_{(BR)EBO}$	12	–	Vdc
Collector–Base Cutoff Current (V_{CB} = 25 Vdc, I_E = 0)	I_{CBO}	–	0.1	μAdc
DC Current Gain (Note 1)	h_{FE}			–
MSD1328–RT1 (V_{CE} = 2.0 Vdc, I_C = 500 mAdc)		200	300	
MSD1328–ST1		300	500	
Collector–Emitter Saturation Voltage (I_C = 500 mAdc, I_B = 20 mAdc)	$V_{CE(sat)}$	–	0.4	Vdc
Base–Emitter Saturation Voltage (I_C = 500 mAdc, I_B = 50 mAdc)	$V_{BE(sat)}$	–	1.2	Vdc

1. Pulse Test: Pulse Width ≤ 300 μs, D.C. 3 2%.