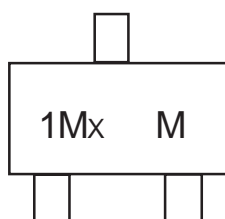


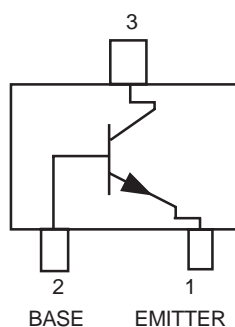
NPN Low Voltage Output Amplifiers - Surface Mount

MARKING DIAGRAM



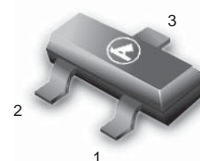
x = R for RT1
S for ST1
M = Date Code

COLLECTOR



BASE EMITTER

MSD1328-RT1
MSD1328-ST1



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	°C
Storage Temperature	T _{stg}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

Characteristic	Symbol	I Min	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 _C = 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%.