

NPN POWER SILICON TRANSISTOR

Devices

2N4150
2N4150S

2N5237
2N5237S

2N5238
2N5238S

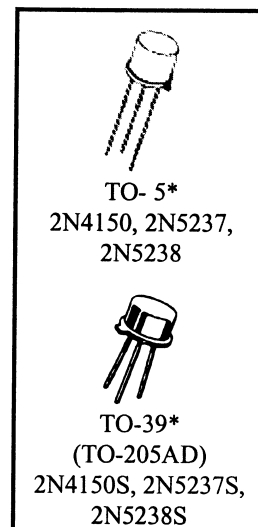
MAXIMUM RATINGS

Ratings	Symbol	2N4150 2N4150S	2N5237 2N5237S	2N5238 2N5238S	Unit
Collector-Emitter Voltage	V_{CEO}	70	120	170	Vdc
Collector-Base Voltage	V_{CBO}	100	150	200	Vdc
Emitter-Base Voltage	V_{EBO}	10			Vdc
Collector Current	I_C	10			Adc
Total Power Dissipation @ $T_A = +25^{\circ}C^{(1)}$ @ $T_C = +100^{\circ}C^{(2)}$	P_T	1.0 5.0			W
Operating & Storage Junction Temp. Range	T_J, T_{stg}	-65 to +200			$^{\circ}C$

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	0.020	$^{\circ}C/mW$
Junction-to-Ambient	$R_{\theta JA}$	0.175	

- Derate linearly @ 5.7 mW/ $^{\circ}C$ for $T_A > +25^{\circ}C$
- Derate linearly @ 50 mW/ $^{\circ}C$ for $T_C > +25^{\circ}C$



*See appendix A for package outline

ELECTRICAL CHARACTERISTICS ($T_C = 25^{\circ}C$ unless otherwise noted)

Characteristics	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Emitter-Base Breakdown Voltage $I_E = 10 \mu A$	$V_{(BR)EBO}$	7.0		Vdc
Collector-Emitter Breakdown Voltage $I_C = 0.1 A$	$V_{(BR)CEO}$	70 120 170		Vdc
Collector-Emitter Cutoff Current $V_{EB} = 0.5 Vdc, V_{CE} = 60 Vdc$ $V_{EB} = 0.5 Vdc, V_{CE} = 110 Vdc$ $V_{EB} = 0.5 Vdc, V_{CE} = 160 Vdc$	I_{CEX}		10 10 10	μA

