

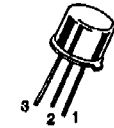
MAXIMUM RATINGS

Rating	Symbol	2N3734	2N3735 2N3737	Unit
Collector-Emitter Voltage	V _{CEO}	30	50	V _{dc}
Collector-Base Voltage	V _{CBO}	50	75	V _{dc}
Emitter-Base Voltage	V _{EB0}	5.0		V _{dc}
Collector Current — Continuous	I _C	1.5		A _{dc}
		TO-39 2N3734 2N3735	TO-46 2N3737	
Total Device Dissipation @ T _A = 25°C Derate above 25°C	P _D	1.0 5.71	0.5 2.86	Watt mW/°C
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	4.0 22.8	2.0 11.4	Watts mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200		°C

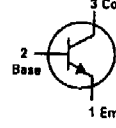
THERMAL CHARACTERISTICS

Characteristic	Symbol	2N3734	2N3735 2N3737	Unit
Thermal Resistance, Junction to Case	R _{θJC}	0.044	0.088	°C/mW
Thermal Resistance, Junction to Ambient	R _{θJA}	0.175	0.35	°C/mW

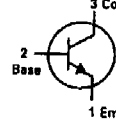
**2N3734
2N3735**
CASE 79-02, STYLE 1
TO-39 (TO-205AD)



2N3737
CASE 26-03, STYLE 1
TO-46 (TO-206AD)



**GENERAL PURPOSE
TRANSISTOR**
NPN SILICON



Refer to 2N3725 for graphs.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage(1) (I _C = 10 mA _{dc} , I _B = 0)	V _{(BR)CEO}	30 50	—	V _{dc}
Collector-Base Breakdown Voltage (I _C = 10 μA _{dc} , I _E = 0)	V _{(BR)CBO}	50 75	—	V _{dc}
Emitter-Base Breakdown Voltage (I _E = 10 μA _{dc} , I _C = 0)	V _{(BR)EBO}	5.0	—	V _{dc}
Collector Cutoff Current (V _{CE} = 25 V _{dc} , V _{EB} = 2 V _{dc}) (V _{CE} = 25 V _{dc} , V _{EB} = 2 V _{dc} , T _A = 100°C) (V _{CE} = 40 V _{dc} , V _{EB} = 2 V _{dc}) (V _{CE} = 40 V _{dc} , V _{EB} = 2 V _{dc} , T _A = 100°C)	I _{CEX}	—	0.20 20 0.20 20	μA _{dc}
Base Cutoff Current (V _{CE} = 25 V _{dc} , V _{EB} = 2 V _{dc}) (V _{CE} = 40 V _{dc} , V _{EB} = 2 V _{dc})	I _{BL}	—	0.3 0.3	μA _{dc}
ON CHARACTERISTICS				
DC Current Gain(1) (I _C = 10 mA _{dc} , V _{CE} = 1 V _{dc}) (I _C = 150 mA _{dc} , V _{CE} = 1 V _{dc}) (I _C = 500 mA _{dc} , V _{CE} = 1 V _{dc}) (I _C = 1 A _{dc} , V _{CE} = 1.5 V _{dc}) (I _C = 1.5 A _{dc} , V _{CE} = 5 V _{dc})	h _{FE}	35 40 35 30 20	— — — 120 80	—
Collector-Emitter Saturation Voltage(1) (I _C = 10 mA _{dc} , I _B = 1 mA _{dc}) (I _C = 150 mA _{dc} , I _B = 15 mA _{dc}) (I _C = 500 mA _{dc} , I _B = 50 mA _{dc}) (I _C = 1 A _{dc} , I _B = 100 mA _{dc})	V _{CE(sat)}	—	0.2 0.3 0.5 0.8	V _{dc}
Base-Emitter Saturation Voltage(1) (I _C = 10 mA _{dc} , I _B = 1 mA _{dc}) (I _C = 150 mA _{dc} , I _B = 15 mA _{dc}) (I _C = 500 mA _{dc} , I _B = 50 mA _{dc}) (I _C = 1 A _{dc} , I _B = 100 mA _{dc})	V _{BE(sat)}	—	0.8 1.0 1.2 1.4	V _{dc}

