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2N3055
 NPN SILICON POWER TRANSISTOR

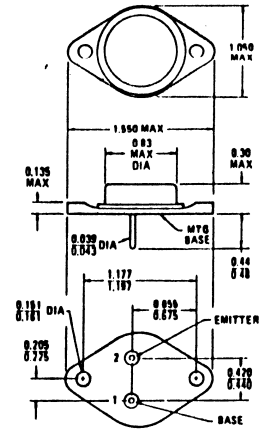
*MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	60	Vdc
Collector-Emitter Voltage	V _{CER}	70	Vdc
Collector-Base Voltage	V _{CB}	100	Vdc
Emitter-Base Voltage	V _{EB}	7.0	Vdc
Collector Current - Continuous	I _C	15	Adc
Base Current - Continuous	I _B	7.0	Adc
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	115 0.657	Watts W/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	θ _{JC}	1.52	°C/W

*Indicates JEDEC Registered Data.



TO-3

Collector Connected to Case

*ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Sustaining Voltage (Note 1) (I _C = 200 mA, I _B = 0)	V _{CEO(sus)}	60	-	Vdc
Collector-Emitter Breakdown Voltage (Note 1) (I _C = 200 mA, R _{BE} = 100 Ohms)	BV _{CER}	70	-	Vdc
Collector-Emitter Current (V _{CE} = 30 Vdc, I _B = 0)	I _{CEO}	-	0.7	mA
Collector Cutoff Current (V _{CE} = 100 Vdc, V _{EB(off)} = 1.5 Vdc) (V _{CE} = 100 Vdc, V _{EB(off)} = 1.5 Vdc, T _C = 150°C)	I _{CEX}	-	5.0 30	mA
Emitter-Base Cutoff Current (V _{EB} = 7.0 Vdc, I _C = 0)	I _{EBO}	-	5.0	mA

ON CHARACTERISTICS

DC Current Gain (Note 1) (I _C = 4.0 Adc, V _{CE} = 4.0 Vdc) (I _C = 10 Adc, V _{CE} = 4.0 Vdc)	h _{FE}	20 5.0	70 -	-
Collector-Emitter Saturation Voltage (Note 1) (I _C = 4.0 Adc, I _B = 0.4 Adc) (I _C = 10 Adc, I _B = 3.3 Adc)	V _{CE(sat)}	-	1.1 8.0	Vdc
Base-Emitter Voltage (Note 1) (I _C = 4.0 Adc, V _{CE} = 4.0 Vdc)	V _{BE}	-	1.8	Vdc

DYNAMIC CHARACTERISTICS

Small Signal Current Gain (Note 1) (V _{CE} = 4.0 Vdc, I _C = 1.0 Adc, f = 1.0 kHz)	h _{fe}	15	120	-
Small Signal Current Gain Cutoff Frequency (V _{CE} = 4.0 Vdc, I _C = 1.0 Adc, f = 1.0 kHz)	f _{αc}	10	-	kHz

Note 1: Pulse Width ≈ 300 μs, Duty Cycle ≤ 2.0%.

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