

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

Characteristic	Symbol	Min	Max	Unit
*OFF CHARACTERISTICS				
Collector-Emitter Sustaining Voltage (1) ($I_C = 100$ mAdc, $I_B = 0$)	$V_{CE(sus)}$	55	—	Vdc
Collector-Emitter Sustaining Voltage (1) ($I_C = 100$ mAdc, $R_{BE} = 100 \Omega$)	$V_{CER(sus)}$	60	—	Vdc
Collector Cutoff Current ($V_{CE} = 30$ Vdc, $I_B = 0$)	I_{CEO}	—	500	μ Adc
Collector Cutoff Current ($V_{CE} = 90$ Vdc, $V_{BE(off)} = 1.5$ Vdc) ($V_{CE} = 90$ Vdc, $V_{BE(off)} = 1.5$ Vdc, $T_C = 150^\circ$ C)	I_{CEX}	—	1.0 6.0	mAdc
Emitter Cutoff Current ($V_{BE} = 7.0$ Vdc, $I_C = 0$)	I_{EBO}	—	1.0	mAdc

***ON CHARACTERISTICS (1)**

DC Current Gain ($I_C = 0.5$ Adc, $V_{CE} = 4.0$ Vdc) ($I_C = 3.0$ Adc, $V_{CE} = 4.0$ Vdc)	h_{FE}	25 50	150 —	—
Collector-Emitter Saturation Voltage ($I_C = 500$ mAdc, $I_B = 50$ mAdc) ($I_C = 3.0$ Adc, $I_B = 1.0$ Adc)	$V_{CE(sat)}$	—	1.0 6.0	Vdc
Base-Emitter On Voltage ($I_C = 500$ mAdc, $V_{CE} = 4.0$ Vdc)	$V_{BE(on)}$	—	1.7	Vdc

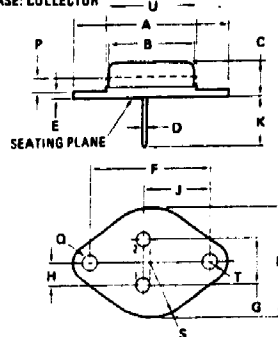
DYNAMIC CHARACTERISTICS

Current-Gain-Bandwidth Product ($I_C = 200$ mAdc, $V_{CE} = 10$ Vdc)	f_T	3.0	—	MHz
*Small-Signal Current Gain ($I_C = 100$ mAdc, $V_{CE} = 4.0$ Vdc, $f = 1.0$ kHz)	h_{fe}	25	180	—
*Common-Emitter Cutoff Frequency ($I_C = 100$ mAdc, $V_{CE} = 4.0$ Vdc)	f_{hfe}	30	—	kHz

***MAXIMUM RATINGS**

Rating	Symbol	2N3054A	2N3054	Unit
Collector-Emitter Voltage	V_{CE0}	55	—	Vdc
Collector-Emitter Voltage ($R_{BE} = 100 \Omega$)	V_{CER}	60	—	Vdc
Collector-Base Voltage	V_{CB}	90	—	Vdc
Emitter-Base Voltage	V_{EB}	7.0	—	Vdc
Collector Current - Continuous Peak	I_C	4.0 10**	—	Adc
Base Current	I_B	2.0	—	Adc
Total Device Dissipation @ $T_C = 25^\circ$ C Derate above 25° C	P_D	75 0.43	25 0.143	Watts W/ $^\circ$ C
Operating and Storage Junction, Temperature Range	T_J, T_{stg}	-65 to +200		$^\circ$ C

STYLE 1:
PIN 1, BASE
2, EMITTER
CASE: COLLECTOR



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
B	11.94	12.70	0.470	0.500
C	6.35	6.64	0.250	0.260
D	0.71	0.86	0.028	0.034
E	1.27	1.51	0.050	0.075
F	24.35	24.43	0.959	0.962
G	4.83	5.33	0.190	0.210
H	2.41	2.67	0.095	0.105
J	14.48	14.99	0.570	0.590
K	9.14	—	0.360	—
P	—	1.27	—	0.050
Q	3.61	3.88	0.142	0.152
S	—	8.89	—	0.350
T	—	3.68	—	0.145
U	—	15.75	—	0.620

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