

## NPN 2N3054

### SILICON POWER TRANSISTORS

The 2N3054 are NPN transistors mounted in TO-66 metal package with the collector connected to the case .

They Designed for general purpose switching and amplifier applications.  
Compliance to RoHS.

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	Value	Unit
$V_{CEO}$	Collector-Emitter Voltage ( $I_B = 0$ )	55	V
$V_{CBO}$	Collector-Base Voltage ( $I_E = 0$ )	90	V
$V_{EBO}$	Emitter-Base Voltage ( $I_C = 0$ )	7	V
$I_C$	Collector Current	4	A
$I_{CM}$	Peak Collector Current	10	
$I_B$	Base Current	2	A
$P_D$	Total Power Dissipation	@ $T_{case} = 25^\circ$	25
$T_J$	Junction Temperature	200	$^\circ C$
$T_{Stg}$	Storage Temperature range	-65 to +200	$^\circ C$

#### THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thJ-c}$	Thermal Resistance, Junction-case	7	$^\circ C/W$

#### ELECTRICAL CHARACTERISTICS

$T_C = 25^\circ C$  unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$I_{CEO}$	Collector Cut-Off Current	$V_{CE} = 30 V, I_B = 0$	-	-	0.5	mA
$I_{EBO}$	Emitter Cut-Off Current	$V_{EB} = 7V, I_C = 0$	-	-	1	
$I_{CEV}$	Collector Cut-Off Current	$V_{CE} = 90V$ $V_{BE} = 1.5V$	-	-	1	
		$T_C = 25^\circ C$	-	-	6	
$V_{CEO} (*)$	Collector Emitter Breakdown Voltage	$I_C = 0.1 mA, I_B = 0$	55	-	-	V
$h_{FE} (*)$	DC Current Gain	$I_C = 100 mA, V_{CE} = 10 V$	40	-	-	-
		$I_C = 1 A, V_{CE} = 2 V$	8	-	80	
$V_{CE(SAT)} (*)$	Collector-Emitter saturation Voltage	$I_C = 500 mA, I_B = 50 mA$	-	-	1	V
		$I_C = 3 A, I_B = 1 A$	-	-	6	
$V_{BE}$	Base-Emitter Voltage	$I_C = 500 mA, V_{CE} = 4 V$	-	-	1.7	V
$f_T$	Transition Frequency	$I_C = 200 mA, V_{CE} = 10 V$ $f = 1 MHz$	500	-	-	MHZ

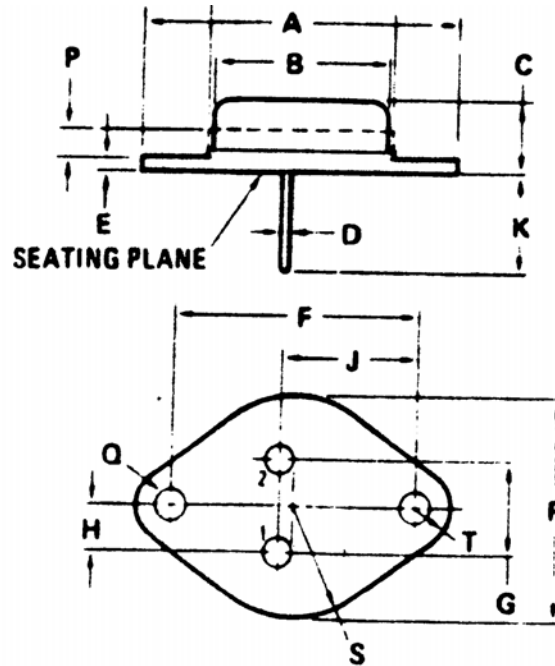
(\*) Pulse conditions :  $t_p < 300 \mu s, \delta = 2\%$ .

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### MECHANICAL DATA CASE TO-66

DIMENSIONS		
	mm	
	min	max
A	30.60	32.52
B	11.94	12.7
C	6.35	8.63
D	0.712	0.863
E	1.27	1.91
F	24.28	24.50
G	4.83	5.33
H	2.41	2.67
J	14.48	14.99
K	9.15	10.50
P	-	2.7
Q	3.60	4.00
S	-	8.89
T	-	3.68

Pin 1 :	Emitter
Pin 2 :	Base
Case :	Collector



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