

# NPN 2N3441

# SILICON POWER TRANSISTOR

The 2N3441 are NPN transistors mounted in TO-66 metal package with the collector connected to the case .

They are intended for use in general purpose switching and amplifier applications. Compliance to RoHS.

### **ABSOLUTE MAXIMUM RATINGS**

Symbol	Ratings		Value	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	$I_{\rm B} = 0$	140	V
V <sub>CBO</sub>	Collector-Base Voltage	$I_E = 0$	160	V
V <sub>EBO</sub>	Emitter-Base Voltage	$I_{\rm C} = 0$	7	V
I <sub>C</sub>	Collector Current		3	Α
I <sub>B</sub>	Base Current		2	А
Pt	Total Power Dissipation	@ T <sub>C</sub> = 25°	25	W
TJ	Junction Temperature		200	°C
T <sub>Stg</sub>	Storage Temperature		-65 to +200	°C

### **ELECTRICAL CHARACTERISTICS**

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Тур	Max	Unit
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage (*)	$I_{C}$ = 100 mA , $I_{B}$ = 0 A	140	-	-	V
I <sub>CEO</sub>	Collector Cutoff Current	$V_{CE}$ = 140 V , $I_{B}$ = 0	-	-	10	mA
		$V_{CE}$ = 140 V , $V_{BE}$ = 1.5 V	-	-	5	
I <sub>CEX</sub>	Collector Cutoff Current	V <sub>CE</sub> = 140 V , V <sub>BE</sub> = 1.5 V T <sub>case</sub> = 150°C	-	-	6	mA
I <sub>EBO</sub>	Emitter Cutoff Current	$V_{EB} = 7 V, I_{C} = 0 A$	-	-	1	mA
V <sub>CE(SAT)</sub>	Collector-Emitter saturation Voltage (*)	$I_{C}$ = 2.7 A , $I_{B}$ = 900 mA	-	-	6	V
V <sub>BE(on)</sub>	Base-Emitter on Voltage (*)	$I_{C} = 40 \text{ A}$ , $I_{B} = 4 \text{ A}$	-	-	6.5	V
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 500 mA, V <sub>CE</sub> = 4 V I <sub>C</sub> = 2.7 A, V <sub>CE</sub> = 4 V	25 5	-	100 -	-

(\*) Pulse Duration = 300  $\mu s,$  Duty Cycle <= 1.5%



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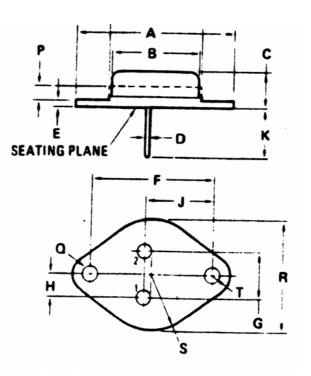
### **THERMAL CHARACTERISTICS**

Symbol	Ratings	Value	Unit
<b>R</b> <sub>thJC</sub>	Thermal Resistance, Junction to Case	7	°C/W

### **MECHANICAL DATA CASE TO-66**

DIMENSIONS		
	mm	
	min	max
A	30.60	32.52
В	11.94	12.7
B C D E	6.35	8.63
D	0.712	0.863
	1.27	1.91
F	24.28	24.50
G	4.83	5.33
Н	2.41	2.67
G H J K P	14.48	14.99
K	9.15	10.50
Ρ	-	2.7
Q	3.60	4.00
Q S	-	8.89
T	-	3.68
	•	
Pin 1 ·		Emitter

Pin 1 :	Emitter
Pin 2 :	Base
Case :	Collector



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