SPTECH Silicon NPN Power Transistors

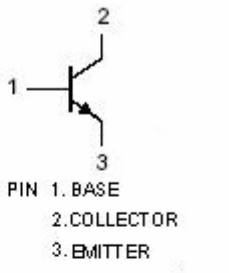
DESCRIPTION

- DC Current Gain -h_{FE} = 30(Min)@ I_C= -0.3A
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 40V(Min)- TIP41; 60V(Min)- TIP41A
  80V(Min)- TIP41B; 100V(Min)- TIP41C
- Complement to Type TIP42/42A/42B/42C

APPLICATIONS

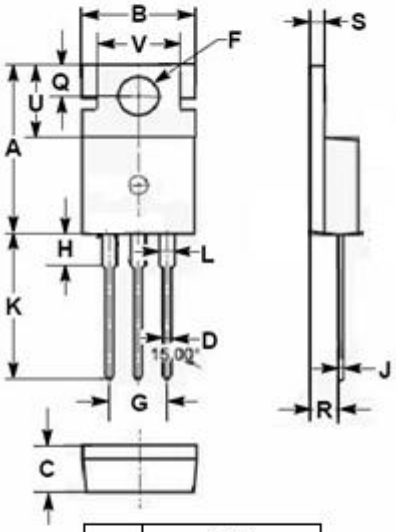
- Designed for use in general purpose amplifer and switching applications





ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	TIP41	40	V
		TIP41A	60	
		TIP41B	80	
		TIP41C	100	
V_{CEO}	Collector-Emitter Voltage	TIP41	40	V
		TIP41A	60	
		TIP41B	80	
		TIP41C	100	
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current-Continuous		6	A
I_{CM}	Collector Current-Peak		10	A
I_B	Base Current		2	A
P_C	Collector Power Dissipation T_C=25℃		65	W
	Collector Power Dissipation T_a=25℃		2	
T_j	Junction Temperature		150	℃
T_{stg}	Storage Temperature Range		-65~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.90	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	13.00	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$ *	Collector-Emitter Sustaining Voltage	TIP41	I_C= 30mA; I_B= 0	40		V
		TIP41A		60		
		TIP41B		80		
		TIP41C		100		
$V_{CE(sat)}$ *	Collector-Emitter Saturation Voltage		I_C= 6A ;I_B= 0.6A		1.5	V
$V_{BE(on)}$ *	Base-Emitter On Voltage		I_C= 6A ; V_{CE}= 4V		2.0	V
I_{CES}	Collector Cutoff Current	TIP41	V_{CE}= 40V; V_{EB}= 0		0.4	mA
		TIP41A	V_{CE}= 60V; V_{EB}= 0			
		TIP41B	V_{CE}= 80V; V_{EB}= 0			
		TIP41C	V_{CE}=100V; V_{EB}= 0			
I_{CEO}	Collector Cutoff Current	TIP41/41A	V_{CE}=30V; I_B= 0		0.7	mA
		TIP41B/41C	V_{CE}= 60V; I_B= 0			
I_{EBO}	Emitter Cutoff Current		V_{EB}= 5V; I_C= 0		1.0	mA
h_{FE-1}*	DC Current Gain		I_C=0.3A ; V_{CE}=4V	30		
h_{FE-2}*	DC Current Gain		I_C= 3A ; V_{CE}= 4V	15	75	
f_T	Current-Gain—Bandwidth Product		I_C= 0.5A ;V_{CE}= 10V	3		MHz

* Pulse Test: PW≤300μs, Duty Cycle≤2%