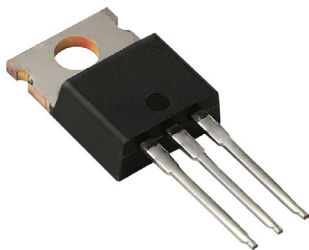


Description

Designed for use in general purpose amplifier and switching application.

**RoHS
Compliant**



Features

- DC Current Gain $-hFE = 30(\text{Min})@ I_C = 0.3A$
- Collector–Emitter Sustaining Voltage
 $V_{CEO(SUS)} = 60V(\text{Min.})$
- Complement to Type TIP42A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	
Emitter-Base Voltage	V_{EBO}	5	
Collector Current-Continuous	I_C	6	A
Collector Current-Peak	I_{CM}	10	
Base Current- Continuous	I_B	2	
Collector Power Dissipation @ $T_C=25^\circ\text{C}$	P_C	65	Watts
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 to +150	

Thermal Characteristics

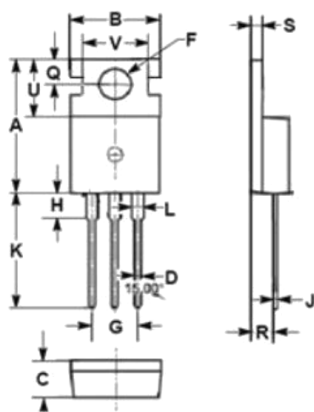
Characteristic	Symbol	Value	Unit
Thermal Resistance Junction to Case	$R_{th\ j-c}$	1.67	$^\circ\text{C}/\text{W}$

Electrical Characteristics ($T_C = 25^\circ\text{C}$ unless otherwise specified)

Characteristic	Symbol	Min.	Max.	Unit
Off Characteristics				
Collector-Emitter Sustaining Voltage ($I_C = 10\text{mA}, I_B = 0$)	$V_{CEO(SUS)}$	60	-	V
Collector Cut-off Current ($V_{CB} = 60\text{V}, I_E = 0$)	I_{CBO}		0.4	mA
Collector Cut-off Current ($V_{CE} = 30\text{V}, I_B = 0$)	I_{CEO}		0.7	
Emitter Cut-off Current $V_{EB} = 5\text{V}, I_C = 0$	I_{EBO}		1	

Characteristic	Symbol	Min.	Max.	Unit
On Characteristics				
DC Current Gain ($I_C = 0.3A, V_{CE} = 4A$) ($I_C = 3A, V_{CE} = 4A$)	h_{FE}	30 15	75	
Collector-Emitter Saturation Voltage $I_C = 6.0A, I_B = 600mA$	$V_{CE(SAT)}$	-	1.5	V
Base-Emitter On Voltage ($I_C = 6A, V_{CE} = 4A$)	$V_{BE(ON)}$	-	2	
DYNAMIC CHARACTERISTICS				
Current gain-Bandwidth product $I_C = 0.5A, V_{CE} = 10V$	f_T	3		MHz
Switching Characteristics				
Turn-on Time	$V_{BE(OFF)} = 4V, I_C = 6A$ $I_{B1} = -I_{B2} = 0.6A, R_L = 5\Omega$	t_{ON}	-	0.6
Turn-off Time		t_{OFF}	-	1

Dimensions



- PIN 1. Base
2. Collector
3. Emitter

Dim	Min.	Max.
A	15.5	15.9
B	9.8	10.2
C	4.2	4.5
D	0.7	0.9
F	3.4	3.7
G	4.98	5.18
H	2.68	2.9
J	0.44	0.6
K	12.8	13.4
L	1.2	1.45
O	2.7	2.9
R	2.3	2.7
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

Part Number Table

Description	Part Number
Transistor, NPN, 60V, 6A, 65W, TO-220	TIP41A.

Dimensions : Millimetres

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