

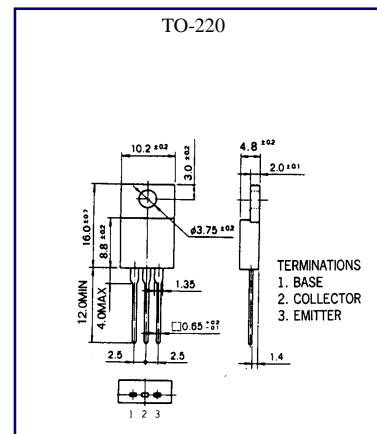


# TIP41 SERIES (TIP41/41A/41B/41C)

## NPN EPITAXIAL SILICON TRANSISTOR

### MEDIUM POWER LINEAR SWITCHING APPLICATIONS

•Complementary to TIP42/42A/42B/42C



### ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage :TIP41	V <sub>CB0</sub>	40	V
:TIP41A		60	V
:TIP41B		80	V
:TIP41C		100	V
Collector-Emitter Voltage :TIP41	V <sub>CE0</sub>	40	V
:TIP41A		60	V
:TIP41B		80	V
:TIP41C		100	V
Emitter-Base voltage	V <sub>EBO</sub>	5	V
Collector Current (DC)	I <sub>C</sub>	6	A
Collector Current (Pulse)	I <sub>C</sub>	10	A
Base Current (DC)	I <sub>B</sub>	2	A
Collector Dissipation (T <sub>c</sub> =25°C)	P <sub>C</sub>	65	W
Junction Temperature	T <sub>j</sub>	150	
Storage Temperature	T <sub>stg</sub>	-50~150	

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Sustaining Voltage	:TIP41 :TIP41A :TIP41B :TIP41C	BV <sub>CEO(SUS)</sub> I <sub>C</sub> =30mA, I <sub>B</sub> =0	40			V
			600			V
			80			V
			100			V
Collector Cutoff Current	:TIP41/41A	ICEO	V <sub>CE</sub> = 30V , I <sub>B</sub> =0		0.7	mA
	:TIP41B/41C		V <sub>CE</sub> = 60V , I <sub>B</sub> =0		0.7	mA
Collector Cutoff Current	:TIP41	ICES	V <sub>CE</sub> = 40V , V <sub>EB</sub> =		400	μA
	:TIP41A		0		400	μA
	:TIP41B		V <sub>CE</sub> = 60V , V <sub>EB</sub> =		400	μA
	:TIP41C		0		400	μA
Emitter Cutoff Current		IEBO	V <sub>CE</sub> = 80V , V <sub>EB</sub> =		1	mA
DC Current Gain		hFE	0	30		
			V <sub>CE</sub> = 100V , V <sub>EB</sub> =	15	75	
Collector- Emitter Saturation Voltage		V <sub>CE(sat)</sub>	0		1.5	V
Base- Emitter On Voltage		V <sub>BE(on)</sub>	V <sub>EB</sub> = 5V , I <sub>C</sub> =0		2.0	V
Current Gain Bandwith Product		f <sub>T</sub>	V <sub>CE</sub> = 4V , I <sub>C</sub> =0.3A	3.0		MHZ
			V <sub>CE</sub> = 4V , I <sub>C</sub> =3A			
			I <sub>C</sub> =6A , I <sub>B</sub> =600mA			
			V <sub>CE</sub> = 4V , I <sub>C</sub> =6A			
			V <sub>CE</sub> = 10V ,			
			I <sub>C</sub> =500mA			
			f=1MHZ			