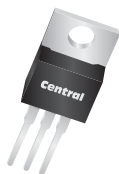


TIP41  
TIP41A  
TIP41B  
TIP41C

**NPN SILICON  
POWER TRANSISTOR**



**TO-220 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR TIP41 SERIES types are NPN Epitaxial-Base Silicon Power Transistors designed for power amplifier and high speed switching applications.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$ )

Collector-Base Voltage	
Collector-Emitter Voltage	
Emitter-Base Voltage	
Continuous Collector Current	
Peak Collector Current	
Continuous Base Current	
Power Dissipation	
Power Dissipation ( $T_A=25^\circ\text{C}$ )	
Operating and Storage Junction Temperature	

SYMBOL	TIP41	TIP41A	TIP41B	TIP41C	UNITS
$V_{CBO}$	40	60	80	100	V
$V_{CEO}$	40	60	80	100	V
$V_{EBO}$			5.0		V
$I_C$			6.0		A
$I_{CM}$			10		A
$I_B$			2.0		A
$P_D$			65		W
$P_D$			2.0		W
$T_J, T_{stg}$			-65 to +150		$^\circ\text{C}$

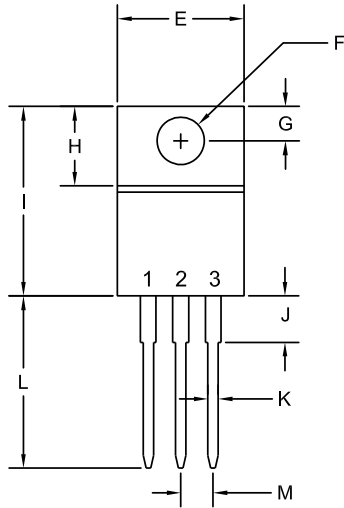
**ELECTRICAL CHARACTERISTICS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CEO}$	$V_{CE}=30\text{V}$ (TIP41, TIP41A)			0.7	mA
$I_{CEO}$	$V_{CE}=60\text{V}$ (TIP41B, TIP41C)			0.7	mA
$I_{CES}$	$V_{CE}=\text{Rated } V_{CEO}$			0.4	mA
$I_{EBO}$	$V_{EB}=5.0\text{V}$			1.0	mA
$BV_{CEO}$	$I_C=30\text{mA}$ (TIP41)	40			V
$BV_{CEO}$	$I_C=30\text{mA}$ (TIP41A)	60			V
$BV_{CEO}$	$I_C=30\text{mA}$ (TIP41B)	80			V
$BV_{CEO}$	$I_C=30\text{mA}$ (TIP41C)	100			V
$V_{CE(SAT)}$	$I_C=6.0\text{A}, I_B=0.6\text{A}$			1.5	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=6.0\text{A}$			2.0	V
$h_{FE}$	$V_{CE}=4.0\text{V}, I_C=0.3\text{A}$	30			
$h_{FE}$	$V_{CE}=4.0\text{V}, I_C=3.0\text{A}$	15		75	
$h_{fe}$	$V_{CE}=10\text{V}, I_C=0.5\text{A}, f=1.0\text{kHz}$	20			
$f_T$	$V_{CE}=10\text{V}, I_C=0.5\text{A}, f=1.0\text{MHz}$	3.0			MHz
$t_{on}$	$I_C=6.0\text{A}, I_{B1}=I_{B2}=0.6\text{A}, R_L=5.0\Omega$		0.6		$\mu\text{s}$
$t_{off}$	$I_C=6.0\text{A}, I_{B1}=I_{B2}=0.6\text{A}, R_L=5.0\Omega$		1.0		$\mu\text{s}$

TIP41  
TIP41A  
TIP41B  
TIP41C  
  
NPN SILICON  
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TO-220 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.170	0.190	4.31	4.82
B	0.045	0.055	1.15	1.39
C	0.013	0.026	0.33	0.65
D	0.083	0.107	2.10	2.72
E	0.394	0.417	10.01	10.60
F (DIA)	0.140	0.157	3.55	4.00
G	0.100	0.118	2.54	3.00
H	0.230	0.270	5.85	6.85
I	0.560	0.625	14.23	15.87
J	-	0.250	-	6.35
K	0.025	0.038	0.64	0.96
L	0.500	0.579	12.70	14.70
M	0.090	0.110	2.29	2.79

TO-220 (REV: R2)

R2

**LEAD CODE:**

- 1) Base
- 2) Collector
- 3) Emitter
- Tab) Collector

**MARKING:**

FULL PART NUMBER

R1 (13-December 2010)