

# isc Silicon PNP Power Transistors

# TIP32C

## DESCRIPTION

- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = -1.2V(\text{Max.})@I_C = -3.0A$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = -100V(\text{Min})$
- Complement to Type TIP31C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

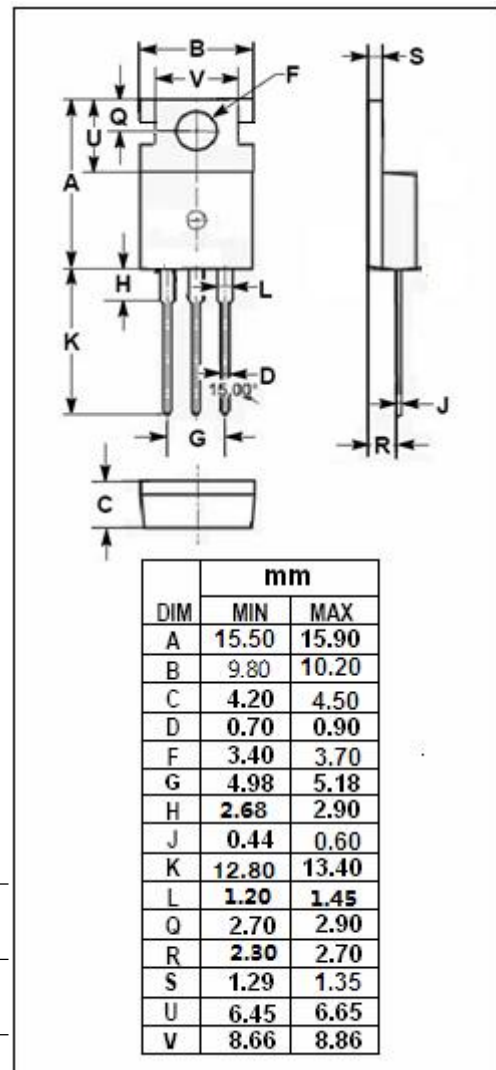
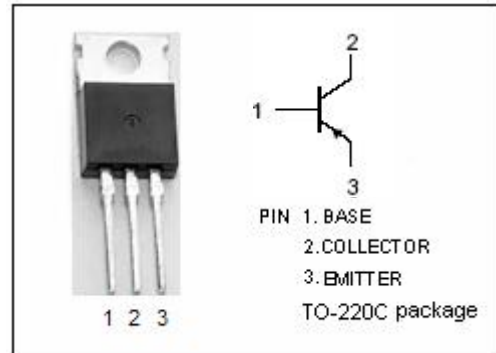
- Designed for use in general purpose amplifier and switching applications.

## ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-base Voltage	-100	V
$V_{CEO}$	Collector-emitter Voltage	-100	V
$V_{EBO}$	Emitter-base Voltage	-5	V
$I_C$	Collector Current-Continuous	-3	A
$I_{CM}$	Collector Current-Pulse	-5	A
$I_B$	Base Current	-1	A
$P_C$	Collector Power Dissipation $T_c=25^\circ\text{C}$	40	W
	Collector Power Dissipation $T_a=25^\circ\text{C}$	2	
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.125	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ\text{C/W}$



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## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = -30mA; I <sub>B</sub> = 0	-100		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -3A; I <sub>B</sub> = -0.375A		-1.2	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -3A; V <sub>CE</sub> = -4V		-1.8	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = -100V; V <sub>EB</sub> = 0		-0.2	mA
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -60V; I <sub>B</sub> = 0		-0.3	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0		-1.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -1A; V <sub>CE</sub> = -4V	25		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -3A; V <sub>CE</sub> = -4V	10	50	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -10V	3		MHz

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