

isc Silicon PNP Power Transistors

TIP32E

DESCRIPTION

- DC Current Gain  $-h_{FE} = 25(\text{Min})@ I_C = -1\text{A}$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -140\text{V}(\text{Min})$
- Complement to Type TIP31E

APPLICATIONS

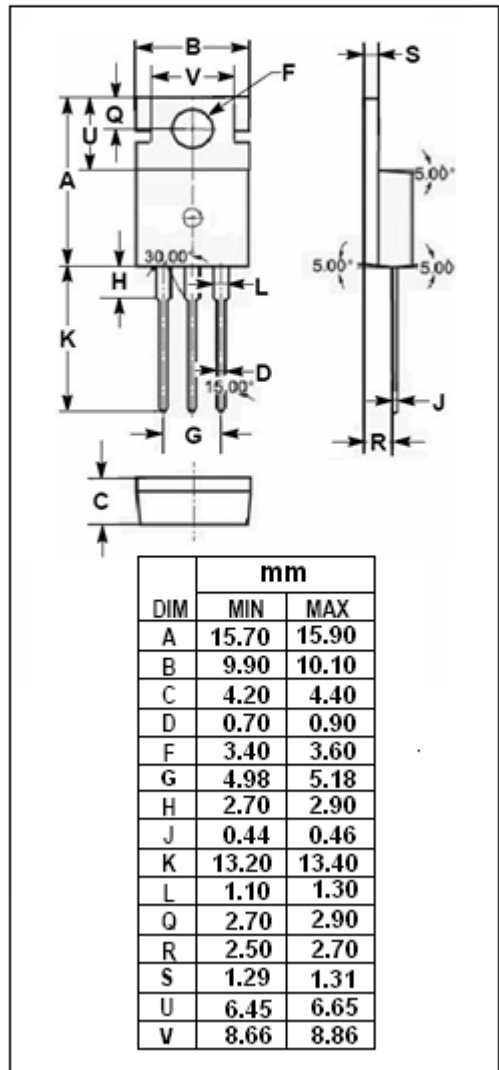
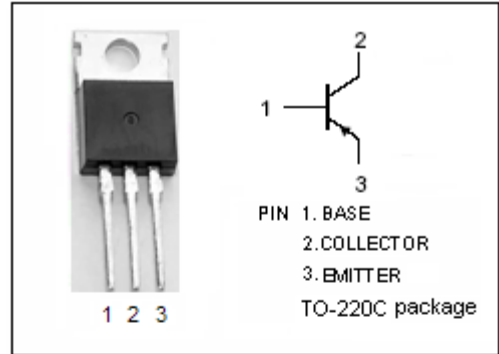
- Designed for use in general purpose amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-180	V
$V_{CEO}$	Collector-Emitter Voltage	-140	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
$T_j$	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	$^\circ\text{C}/\text{W}$



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## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -30\text{mA}; I_B = 0$	-140		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}; I_B = -0.75\text{A}$		-2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -3\text{A}; V_{CE} = -4\text{V}$		-1.8	V
$I_{CES}$	Collector Cutoff Current	$V_{CE} = -180\text{V}; V_{EB} = 0$		-0.2	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -90\text{V}; I_B = 0$		-0.3	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$		-1.0	mA
$h_{FE-1}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -4\text{V}$	25		
$h_{FE-2}$	DC Current Gain	$I_C = -3\text{A}; V_{CE} = -4\text{V}$	5		
$f_T$	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -10\text{V}$	3		MHz