

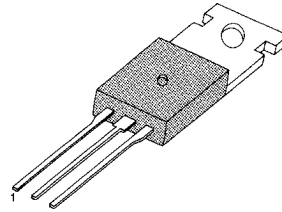
**GENERAL PURPOSE AND SWITCHING  
APPLICATIONS  
DC CURRENT GAIN SPECIFIED  
TO 10 AMPERES**

- High Current Gain-Bandwidth Product ( $f_T = 2\text{kHz}$  (MIN))

**ABSOLUTE MAXIMUM RATINGS**

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	$V_{CBO}$	70	V
Collector-Emitter Voltage	$V_{CEO}$	60	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	10	A
Base Current	$I_B$	6	A
Collector Dissipation ( $T_C=25^\circ\text{C}$ )	$P_C$	75	W
Collector Dissipation ( $T_A=25^\circ\text{C}$ )	$P_C$	0.6	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55~150	$^\circ\text{C}$

TO-220

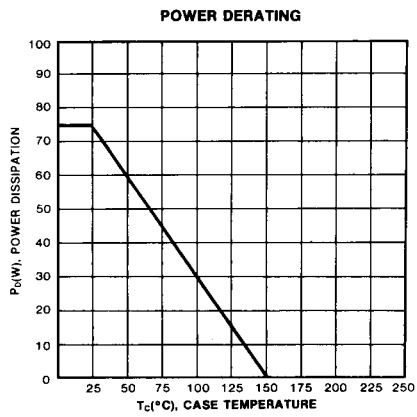
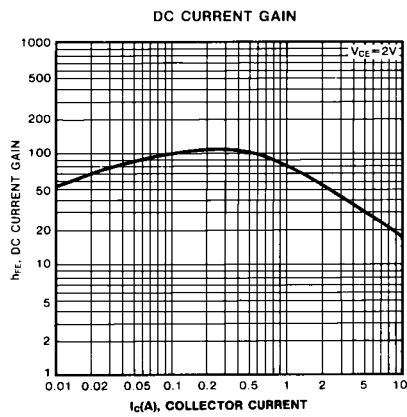
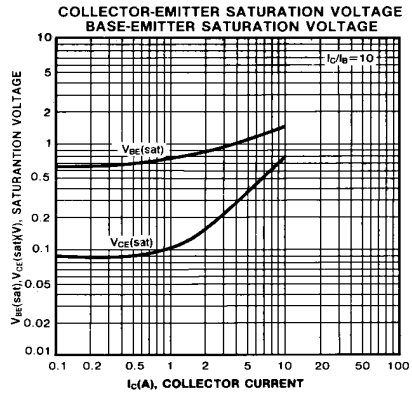
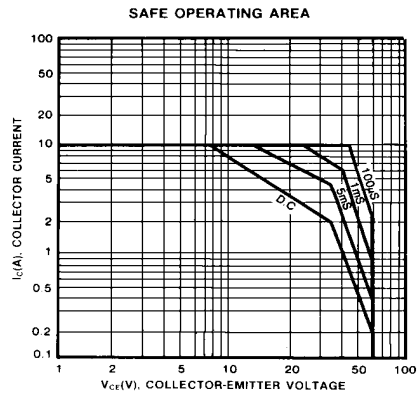


1.Base 2.Collector 3.Emitter

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

Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 200\text{mA}$ , $I_B = 0$	60		V
Collector Cutoff Current	$I_{CEO}$	$V_{CE} = 30\text{V}$ , $I_B = 0$		700	$\mu\text{A}$
Collector Cutoff Current	$I_{CEX}$	$V_{CE} = 70\text{V}$ , $V_{BE(off)} = -1.5\text{V}$ $V_{CE} = 70\text{V}$ , $V_{BE(off)} = -1.5\text{V}$ $T_C = 150^\circ\text{C}$		1 5	$\mu\text{A}$ mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5\text{V}$ , $I_C = 0$		5	mA
* DC Current Gain	$h_{FE}$	$V_{CE} = 4\text{V}$ , $I_C = 4\text{A}$ $V_{CE} = 4\text{V}$ , $I_C = 10\text{A}$	20 5	100	
* Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4\text{A}$ , $I_B = 0.4\text{A}$ $I_C = 10\text{A}$ , $I_B = 3.3\text{A}$		1.1 8	V V
* Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 4\text{V}$ , $I_C = 4\text{A}$		1.8	V
Current Gain Bandwidth Product	$f_T$	$V_{CE} = 10\text{V}$ , $I_C = 500\text{mA}$ $f = 500\text{kHz}$	2		MHz

\* Pulse test:  $PW \leq 300\text{nA}$ , duty cycle  $\leq 2\%$  Pulse



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