

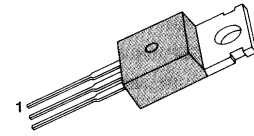
**GENERAL PURPOSE AND SWITCHING
APPLICATIONS
DC CURRENT GAIN SPECIFIED
TO 10 AMPERES**

- 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

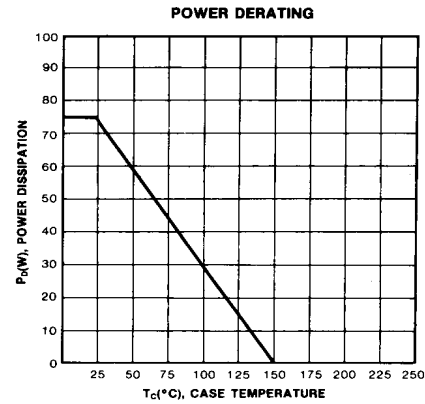
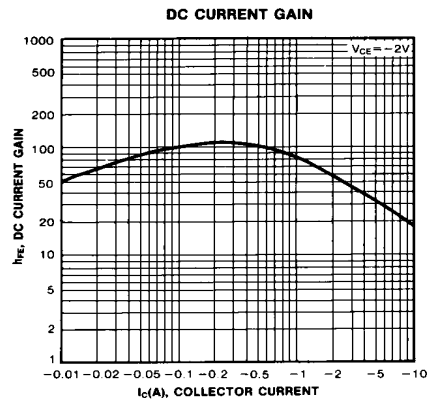
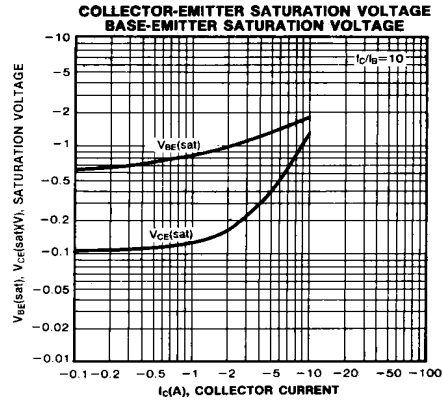
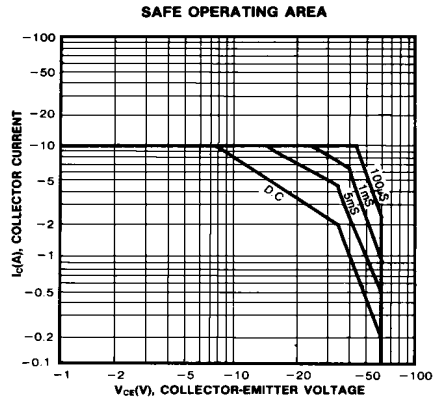


1. Gate 2. Drain 3. Source

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	μA
Collector Cutoff Current	I_{CEX}	$V_{CE} = -70\text{V}$, $V_{BE(off)} = 1.5\text{V}$		-1	mA
		$V_{CE} = -70\text{V}$, $V_{BE(off)} = 1.5\text{V}$		-5	
		$T_C = 150^\circ\text{C}$		-5	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$		-5	
* DC Current Gain	h_{FE}	$V_{CE} = -4\text{V}$, $I_C = -4\text{A}$	20	100	
		$V_{CE} = -4\text{V}$, $I_C = -10\text{A}$	5		
* Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -4\text{A}$, $I_B = -0.4\text{A}$		-1.1	V
		$I_C = -10\text{A}$, $I_B = -3.3\text{A}$		-8	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	$V_{CE} = -10\text{V}$, $I_C = -500\text{mA}$	2		MHz
		$f = 500\text{kHz}$			

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



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