

## MEDIUM POWER LINEAR SWITCHING APPLICATIONS

- Collector current 10A
- Collector dissipation  $P_c = 75W$  ( $T_c = 25^\circ C$ )

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	-20	V
Collector-Emitter Voltage	$V_{CEO}$	-10	V
Emitter-Base Voltage	$V_{EBO}$	-7	V
Collector Current	$I_c$	-10	A
Collector Dissipation	$P_c$	75	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 ~ 150	$^\circ C$

TO-220

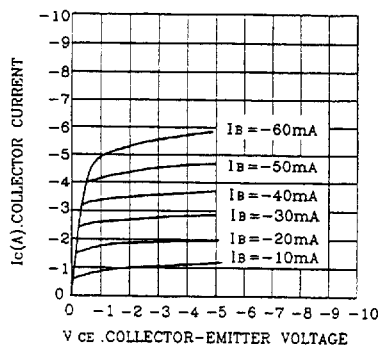


1. Base 2. Collector 3. Emitter

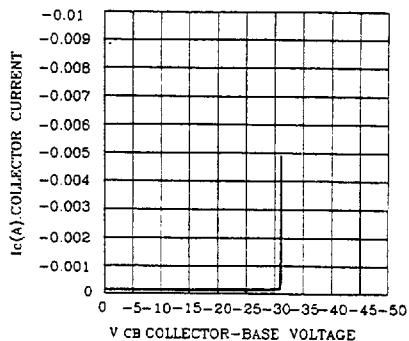
### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_c = -1mA, I_E = 0$	-20			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_c = -10mA, I_B = 0$	-10			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = -1mA, I_C = 0$	-7			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = -15V, I_E = 0$			-100	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -3V, I_C = 0$			-100	$\mu A$
DC Current Gain	$h_{FE1}$	$V_{CE} = -3V, I_C = -6A$	80			
	$h_{FE2}$	$V_{CE} = -3V, I_C = -10A$	50			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -6A, I_E = -600mA$			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = -6A, V_{CE} = -4V$			-1.5	V

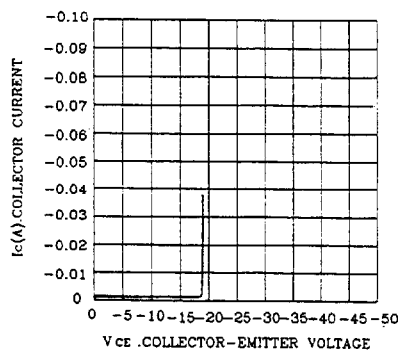
## DC CURRENT GAIN



## COLLECTOR-BASE BREAKDOWN VOLTAGE



## COLLECTOR-EMITTER BREAKDOWN VOLTAGE



## COLLECTOR-EMITTER SATURATION VOLTAGE

