

### ■ PRODUCT CHARACTERISTICS

BVCBO	-100
BVCEO	-100
IC	-6

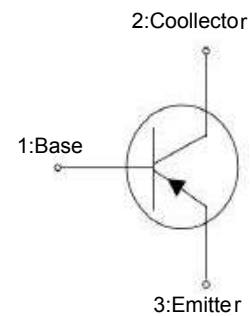
### ■ DESCRIPTION

- High Voltage:  $V_{CEV} = -100V$  (Min)
- Fast Switching Speed
- Low Saturation Voltage

### ■ APPLICATIONS

- Designed for use in horizontal deflection output stages of TV's and CRT's

### Symbol



TO-220F

### ■ ABSOLUTE MAXIMUM RATINGS ( $T_C = 25^\circ C$ , unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector Base Voltage	$V_{CBO}$	-100	V
Collector to Emitter Voltage	$V_{CEO}$	-100	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-6	A
		-10	A
Base Current	$I_B$	-2	A
Collector Dissipation	$P_C$	22	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{STG}$	-65 ~ +150	$^\circ C$

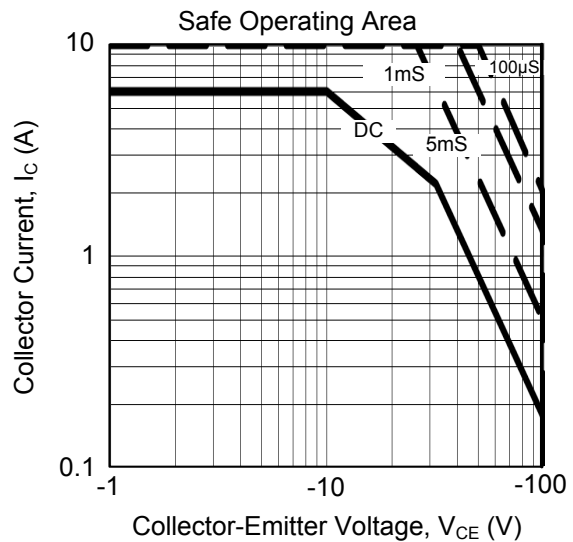
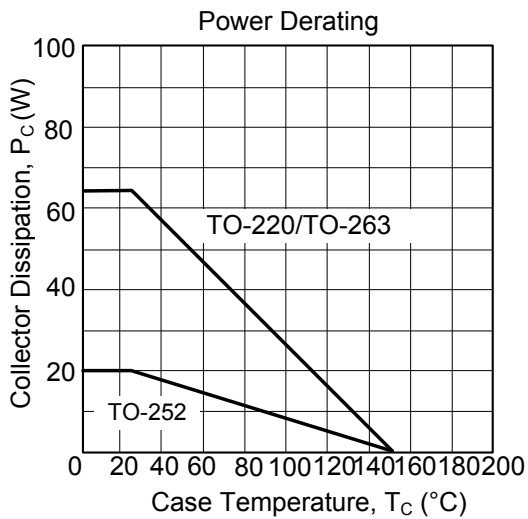
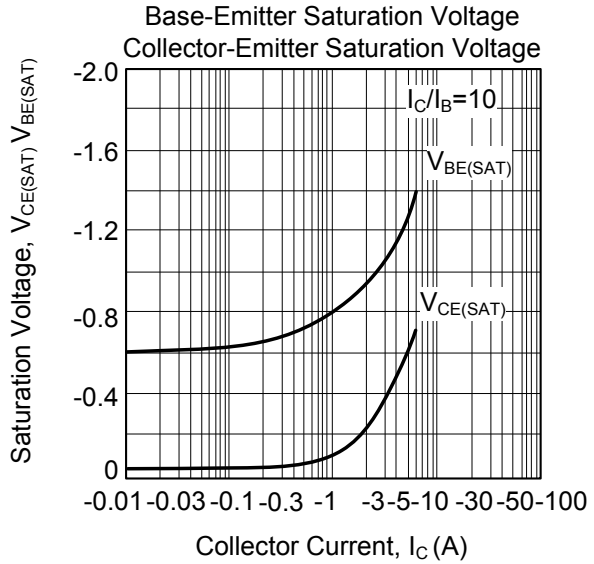
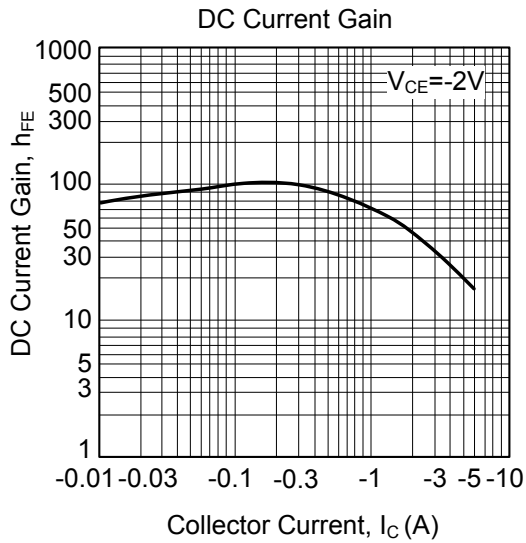
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ( $T_C = 25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Emitter Base Breakdown Voltage	$BV_{EBO}$	$I_E = -100\ \mu\text{A}$ , $I_C = 0$	-5	-	-	V
Collector Base Breakdown Voltage	$BV_{CBO}$	$I_C = -100\ \mu\text{A}$ , $I_E = 0$	-100	-	-	V
Collector Emitter Sustaining Voltage (Note)	$BV_{CEO}$	$I_C = -30\text{mA}$ , $I_B = 0$	-	-	-	V
Collector Cutoff Current	$I_{CEO}$	$V_{CE} = -60\text{V}$ , $I_B = 0$	-	-	-0.7	mA
Collector Cutoff Current	$I_{CES}$	$V_{CE} = -100\text{V}$ , $V_{EB} = 0$	-	-	-400	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -5\text{V}$ , $I_C = 0$	-	-	-1	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	$I_C = -6\text{A}$ , $I_B = -600\text{mA}$	-	-	-1.5	V
Base-Emitter On Voltage (Note)	$V_{BE(ON)}$	$I_C = -6\text{A}$ , $V_{CE} = -4\text{V}$	-	-	-2	V
DC Current Gain (Note)	$h_{FE1}$	$I_C = -300\text{mA}$ , $V_{CE} = -4\text{V}$	30	-	-	-
	$h_{FE2}$	$I_C = -3\text{A}$ , $V_{CE} = -4\text{V}$	15	-	75	-
Current Gain Bandwidth Product	$f_T$	$V_{CE} = -10\text{V}$ , $I_C = -500\text{mA}$ , $f = 1\text{MHz}$	3	-	-	MHz

Note: Pulse Test:  $P_W \leq 300\ \mu\text{s}$ , Duty Cycle  $\leq 2\%$

■ TYPICAL CHARACTERISTICS



■ TO-220F-3L PACKAGE OUTLINE DIMENSIONS

