

### ■ PRODUCT CHARACTERISTICS

BVCBO	100V
BVCEO	100V
IC	6A

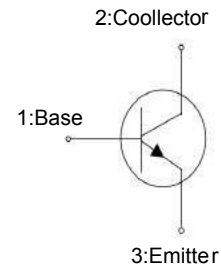
### ■ DESCRIPTION

- High Voltage:  $V_{CEV} = 100V(\text{Min})$
- 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 ( $T_C = 25^\circ\text{C}$ , 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	DC	6	A
	Pulse	10	A
Base Current	$I_B$	2	A
Collector Dissipation	$T_C = 25^\circ\text{C}$	22	W
	$T_A = 25^\circ\text{C}$	0.7	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-65 ~ +150	$^\circ\text{C}$

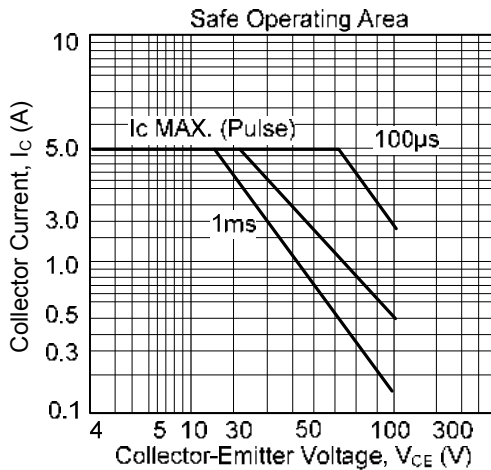
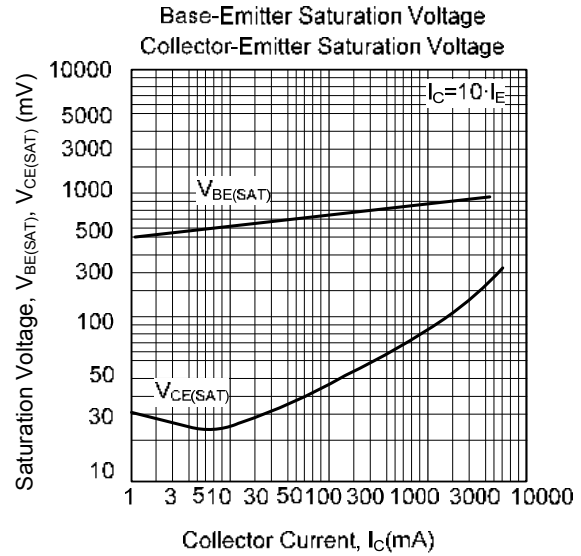
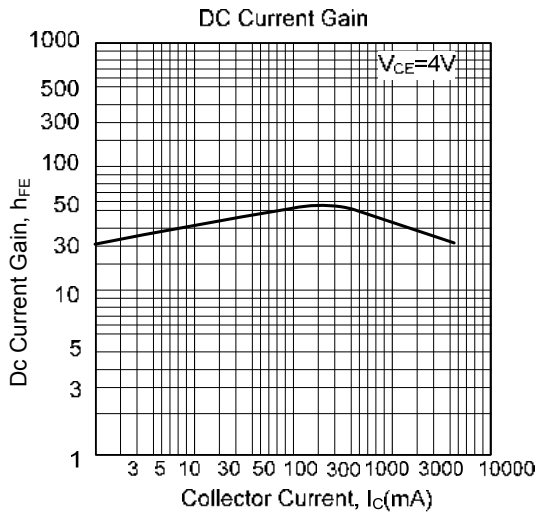
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ 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)	$BV_{CEO}$	$I_C=30\text{mA}, I_B=0$	100			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)	$V_{BE(ON)}$	$I_C=6\text{A}, V_{CE}=4\text{V}$			2.0	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:  $P_W \cong 300\mu\text{s}$ , Duty Cycle  $\cong 2\%$

■ TYPICAL CHARACTERISTICS



■ TO-220F-3L PACKAGE OUTLINE DIMENSIONS

