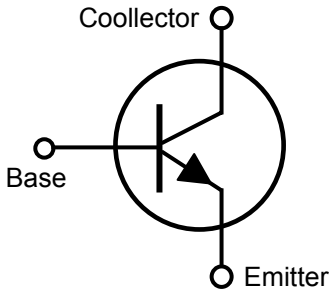
■ PRODUCT CHARACTERISTICS

BVCBO	400V
BVCEO	200V
IC	7A

Symbol



TO-220

1:Base
2:Coollecto
3:Emitte

■ DESCRIPTION

- High Voltage: V_{CEV}= 400V(Min)
- Fast Switching Speed
- Low Saturation Voltage

■ APPLICATIONS

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

■ ABSOLUTE MAXIMUM RATINGS (T_C = 25°C, unless otherwise specified)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEV}	Collector-Emitter Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CP}	Collector Current-Peak Repetitive	10	A
I_{CP}	Collector Current- Peak (10ms)	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation @ T_C=25℃	60	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

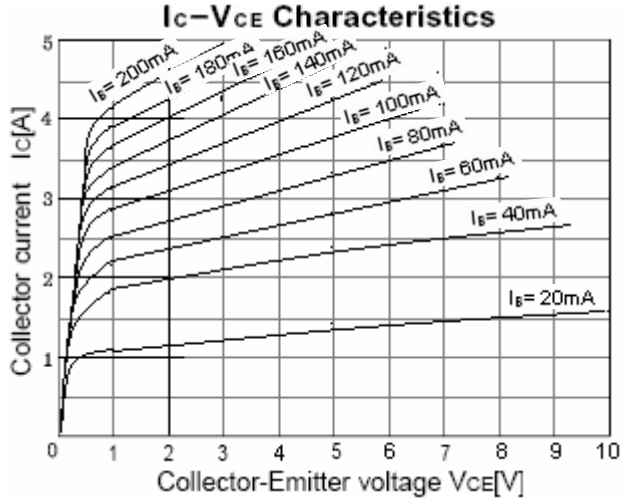
■ THERMAL CHARACTERISTICS

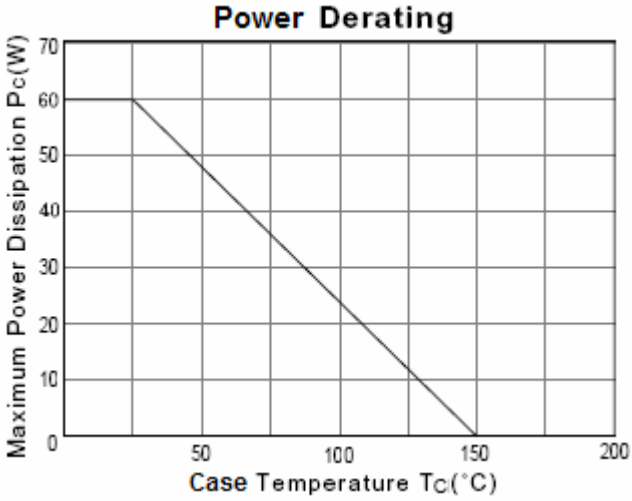
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.08	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	70	℃/W

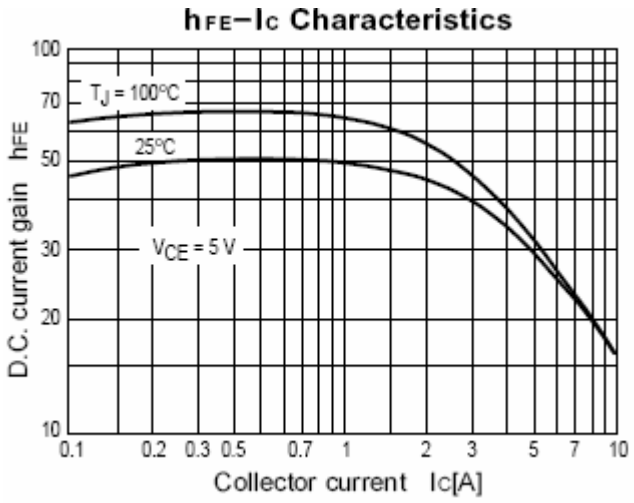
■ ELECTRICAL CHARACTERISTICS (T_C = 25°C, unless otherwise specified)

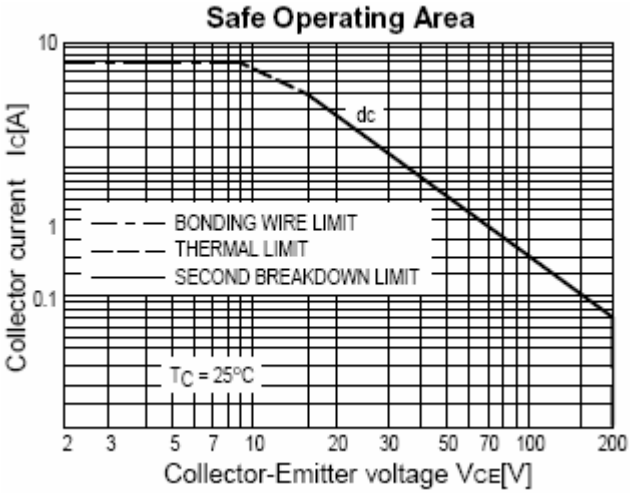
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 100mA ;I_B= 0	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.2	V
I_{CES}	Collector Cutoff Current	V_{CE}= 400V; V_{BE}= 0			5.0	mA
I_{CES}	Collector Cutoff Current	V_{CE}=250V; V_{BE}= 0			0.1	mA
I_{CES}	Collector Cutoff Current	V_{CE}=250V; V_{BE}= 0;T_C= 150℃			1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C=0			1.0	mA
h_{FE}	DC Current Gain	V_{CE}=10V; I_C= 500mA	50		120	
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A ; V_{CE}= 10V, f_{test}= 20MHz	10			MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f_{test}= 1.0MHz		80		pF
t_f	Fall Time	I_C= 5A; I_{B1}= -I_{B2}= 0.5A, L= 150μH V_{CC}= 40V			0.75	μs

■ TYPICAL CHARACTERISTICS









■ TO-220-3L PACKAGE OUTLINE DIMENSIONS