

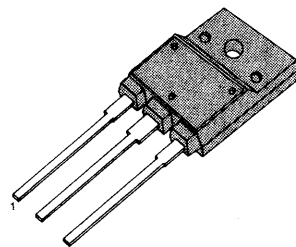
COLOR MONITOR HORIZONTAL OUTPUT APPLICATIONS

- High Collector Base Voltage: $V_{CBO} = 1500V$
- Built In Damper Diode

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

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	1500	V
Collector Emitter Voltage	V_{CEO}	800	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	5	A
Collector Current (Pulse)	I_C	20	A
Collector Dissipation ($T_C = 25^\circ C$)	P_C	60	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	$-55 \sim 150$	$^\circ C$

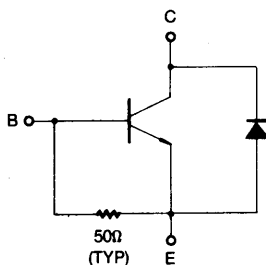
TO-3P(F)



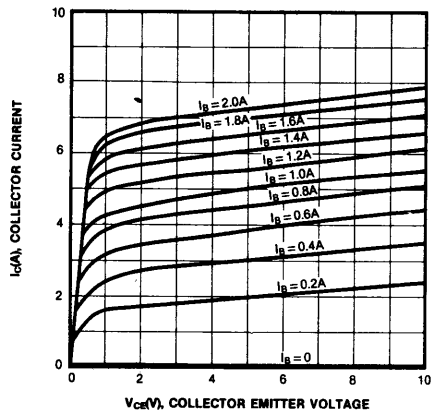
1. Base 2. Collector 3. Emitter

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

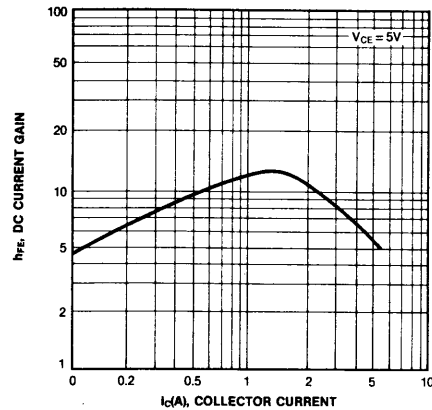
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C = 100mA, I_B = 0$	800			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 800V, I_E = 0$			10	μA
Collector Cutoff Current	I_{CES}	$V_{CE} = 1500V, V_{BE} = 0$			1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$	40		130	mA
DC Current Gain	h_{FE1}	$V_{CE} = 5V, I_C = 1A$	8			
	h_{FE2}	$V_{CE} = 5V, I_C = 4A$	3			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 0.8A$			5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 0.8A$			1.5	V
Damper Diode Turn On Voltage	V_f	$I_f = 5A$			2	V
Fall Time	t_f	$I_C = 4A, I_{B1} = 0.8A$ $I_{B2} = -1.6A$		0.1	0.3	μS



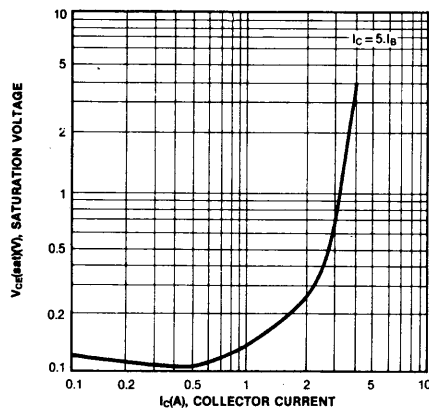
STATIC CHARACTERISTIC



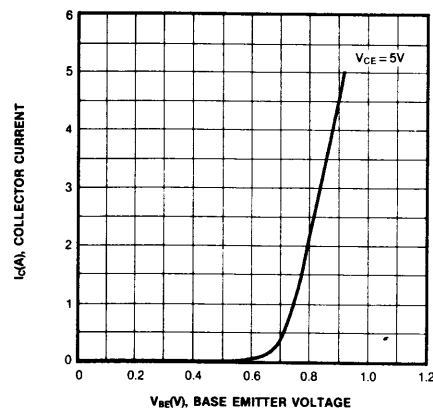
DC CURRENT GAIN



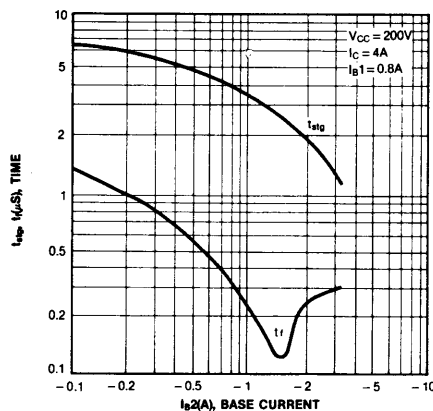
COLLECTOR EMITTER SATURATION VOLTAGE



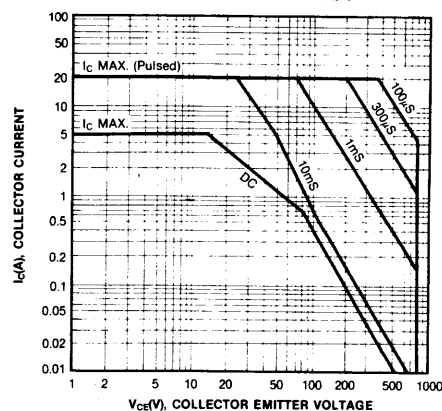
BASE EMITTER ON VOLTAGE

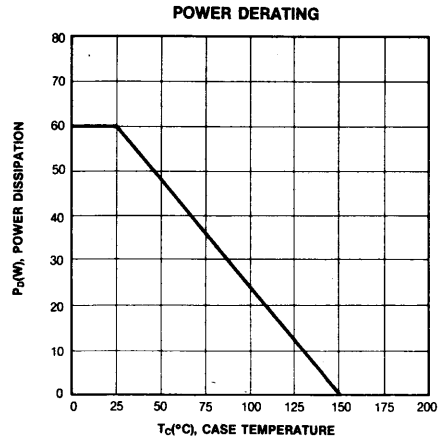
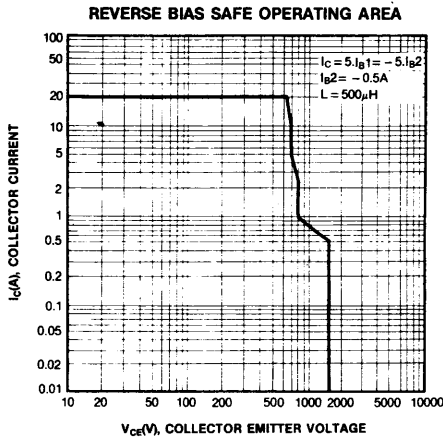


SWITCHING TIME



SAFE OPERATING AREA





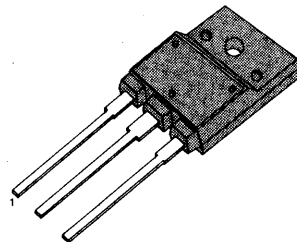
COLOR MONITOR HORIZONTAL OUTPUT
APPLICATIONS

- High Collector Base Voltage: $V_{CBO} = 1500V$
- Built In Damper Diode

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

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	1500	V
Collector Emitter Voltage	V_{CEO}	800	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	6	A
Collector Current (Pulse)	I_C	20	A
Collector Dissipation ($T_C = 25^\circ C$)	P_C	60	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	$-55 \sim 150$	$^\circ C$

TO-3P(F)

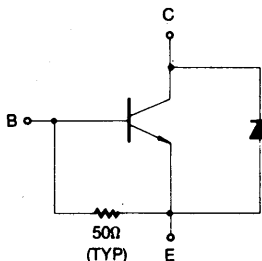


1. Base 2. Collector 3. Emitter

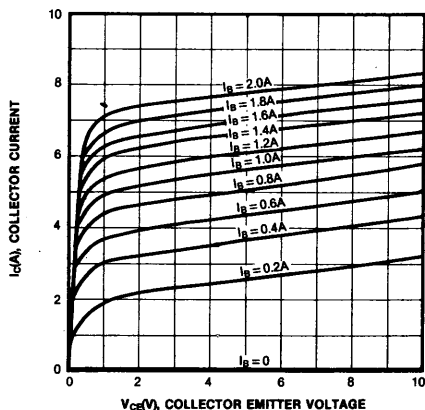
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ELECTRICAL CHARACTERISTICS ($T_s = 25^\circ C$)

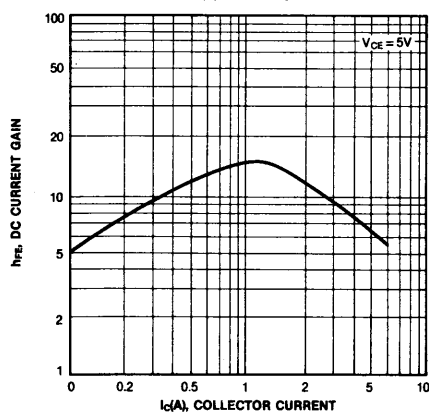
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C = 100mA, I_B = 0$	800			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 800V, I_E = 0$			10	μA
Collector Cutoff Current	I_{CES}	$V_{CE} = 1500V, V_{BE} = 0$			1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$	40		130	mA
DC Current Gain	h_{FE1}	$V_{CE} = 5V, I_C = 1A$	8			
	h_{FE2}	$V_{CE} = 5V, I_C = 5A$	3			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5A, I_B = 1A$			5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 5A, I_B = 1A$			1.5	V
Damper Diode Turn On Voltage	V_f	$I_f = 6A$			2	V
Fall Time	t_f	$I_C = 4A, I_{B1} = 0.8A$ $I_{B2} = -1.6A$		0.1	0.3	μS



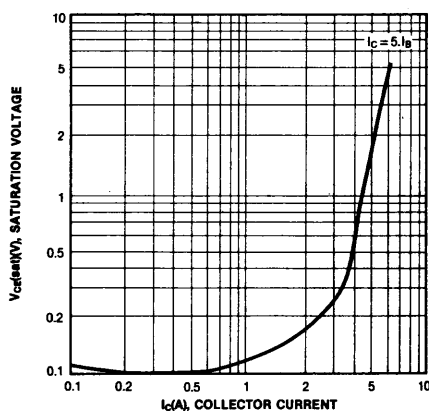
STATIC CHARACTERISTIC



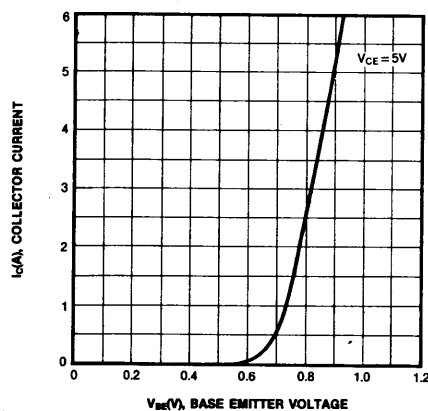
DC CURRENT GAIN



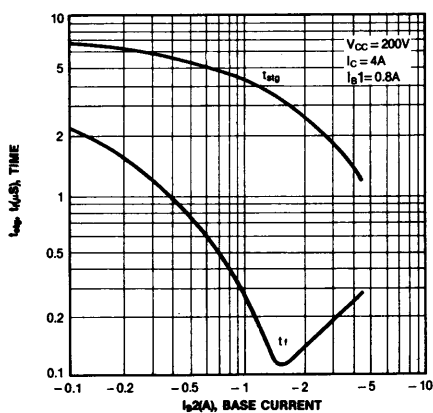
COLLECTOR-EMITTER SATURATION VOLTAGE



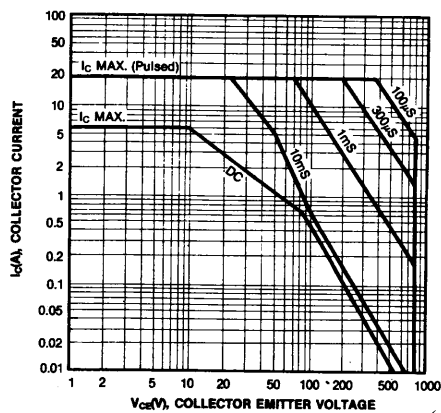
BASE-EMITTER ON VOLTAGE

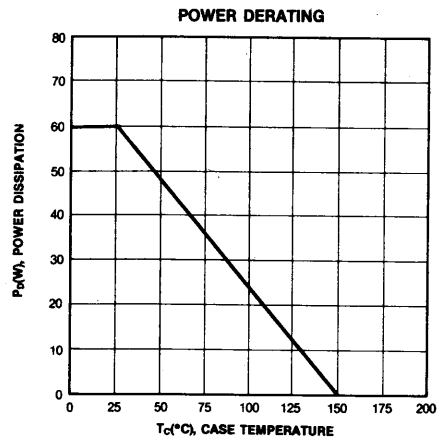
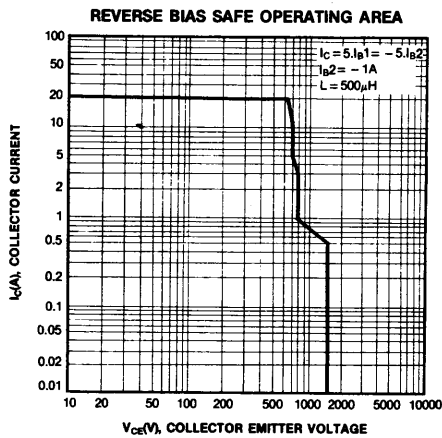


SWITCHING TIME



SAFE OPERATING AREA





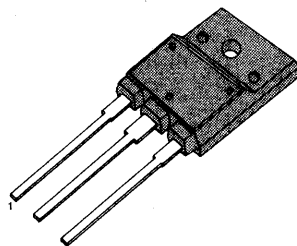
COLOR MONITOR HORIZONTAL OUTPUT
APPLICATIONS

- High Collector Base Voltage: $V_{CBO} = 1500V$

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

Characteristic	Symbol	Rating	Unit
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Collector Dissipation ($T_C = 25^\circ C$)	P_C	60	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	$-55 \sim 150$	$^\circ C$

TO-3P(F)

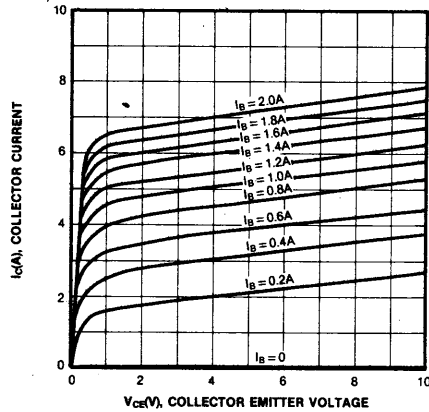


1. Base 2. Collector 3. Emitter

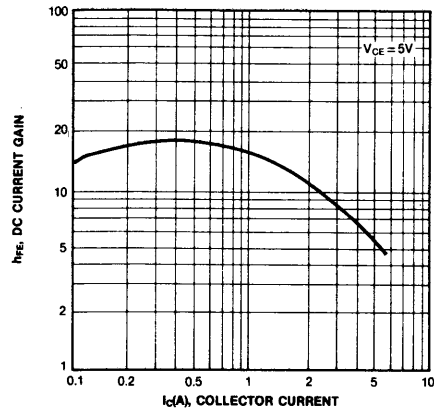
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100mA, I_B = 0$	800			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 800V, I_E = 0$			10	μA
Collector Cutoff Current	I_{CES}	$V_{CE} = 1500V, V_{BE} = 0$			1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			1	mA
DC Current Gain	h_{FE1}	$V_{CE} = 5V, I_C = 1A$	8			
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Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 0.8A$			5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 0.8A$			1.5	V
Fall Time	t_f	$I_C = 4A, I_{B1} = 0.8A$ $I_{B2} = -1.6A$		0.1	0.3	μS

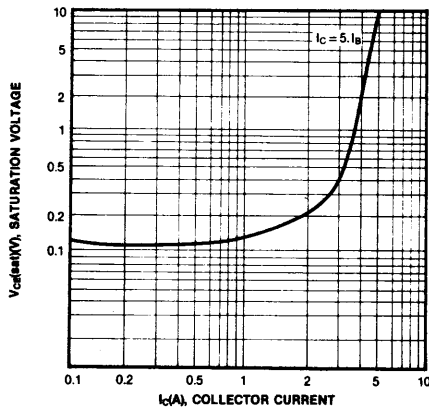
STATIC CHARACTERISTIC



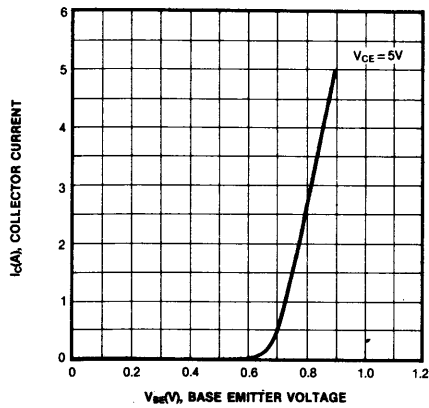
DC CURRENT GAIN



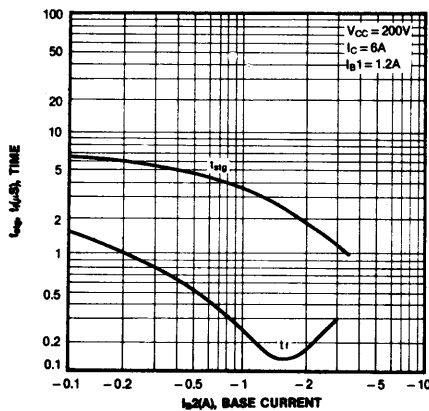
COLLECTOR EMITTER SATURATION VOLTAGE



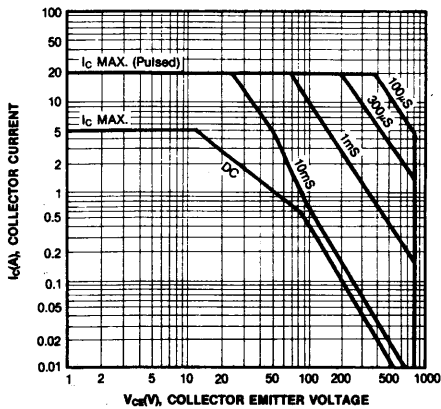
BASE EMITTER ON VOLTAGE

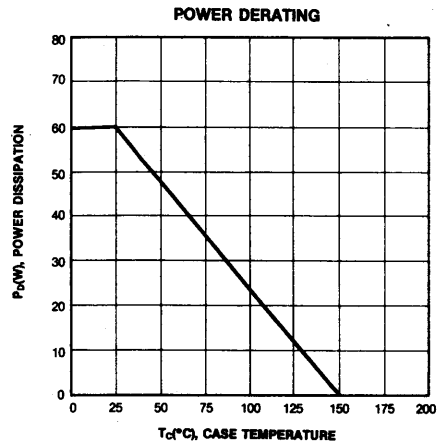
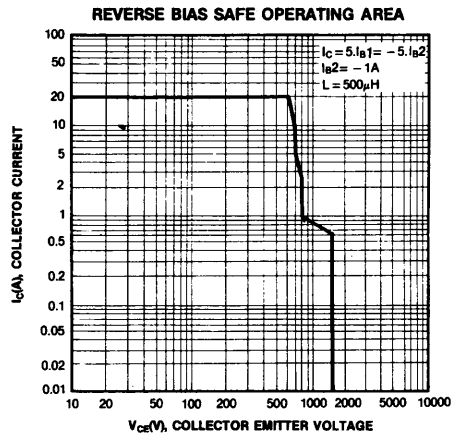


SWITCHING TIME



SAFE OPERATING AREA





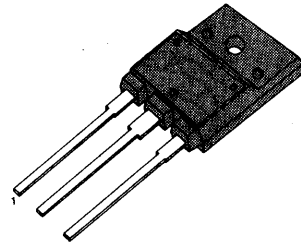
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Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$

TO-3P(F)



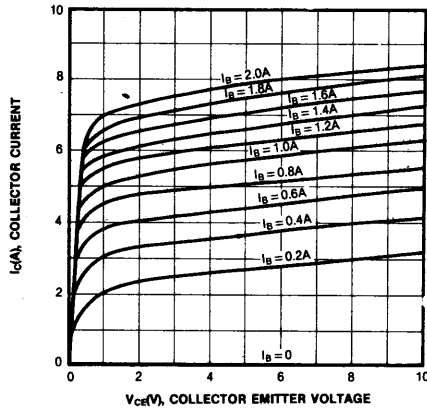
1. Base 2. Collector 3. Emitter

3

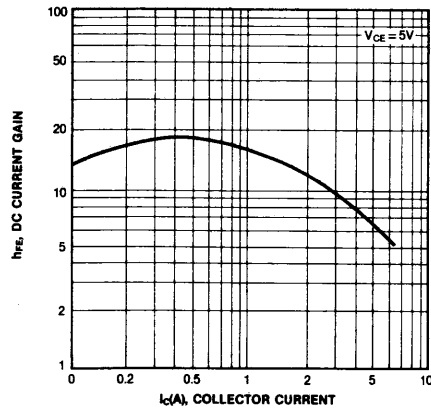
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100mA, I_B = 0$	800			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 800V, I_E = 0$			10	μA
Collector Cutoff Current	I_{CES}	$V_{CE} = 1500V, V_{BE} = 0$			1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			1	mA
DC Current Gain	h_{FE1}	$V_{CE} = 5V, I_C = 1A$	8			
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Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5A, I_B = 1A$			5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 5A, I_B = 1A$			1.5	V
Fall Time	t_f	$I_C = 4A, I_{B1} = 0.8A$ $I_{B2} = -1.6A$		0.1	0.3	μS

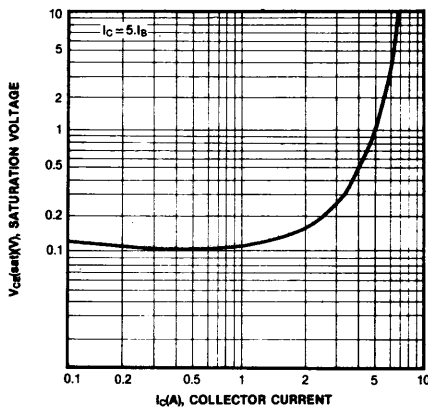
STATIC CHARACTERISTIC



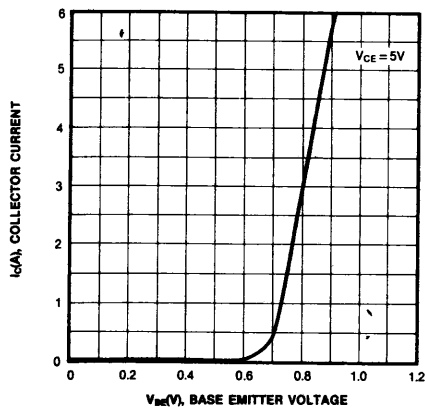
DC CURRENT GAIN



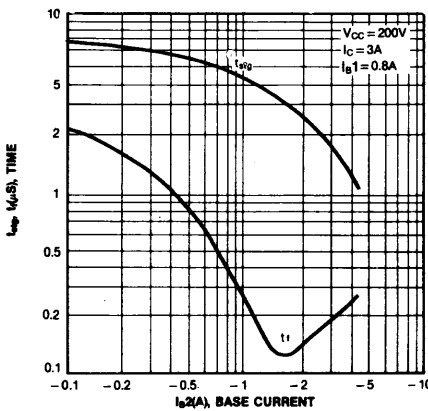
COLLECTOR EMITTER SATURATION VOLTAGE



BASE EMITTER ON VOLTAGE



SWITCHING TIME



SAFE OPERATING AREA

