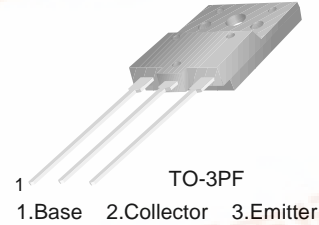


FAIRCHILD
SEMICONDUCTOR™

KSD5703

High Voltage Color Display Horizontal Deflection Output (No Damper Diode)

- High Collector-Base Voltage : $V_{CBO}=1500V$
- High Switching Speed $t_f = 0.3\mu s$ (Max.)
- For Color TV



NPN Triple Diffused Planar Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current (DC)	10	A
I_{CP}	Collector Current (Pulse)	30	A
P_C	Collector Dissipation ($T_C=25^\circ C$)	70	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ C$

Electrical Characteristics $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CES}	Collector Cut-off Current	$V_{CE} = 1400V, V_{BE}=0$			1	mA
I_{CBO}	Collector Cut-off Current	$V_{CB} = 800V, I_E = 0$			10	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 4V, I_C = 0$			1	mA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = 5V, I_C = 1A$ $V_{CE} = 5V, I_C = 8A$	15 5.3		40 7.3	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 8A, I_B = 1.6A$			5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 8A, I_B = 1.6A$			1.5	V
t_f	Fall Time	$V_{CC} = 200V, I_C = 6A$ $I_{B1} = 1.2A, I_{B2} = - 2.4A$ $R_L = 33.3\Omega$		0.1	0.3	μs



Typical Characteristics

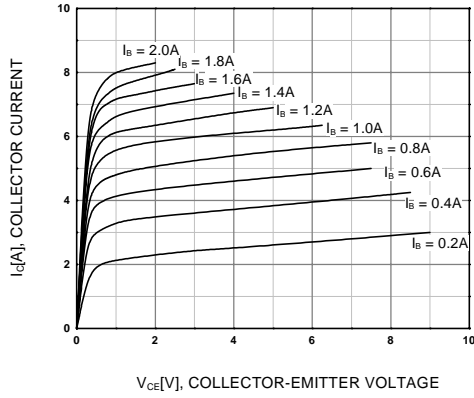


Figure 1. Static Characteristic

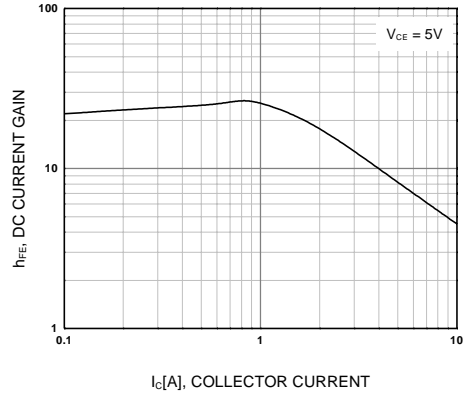


Figure 2. DC current Gain

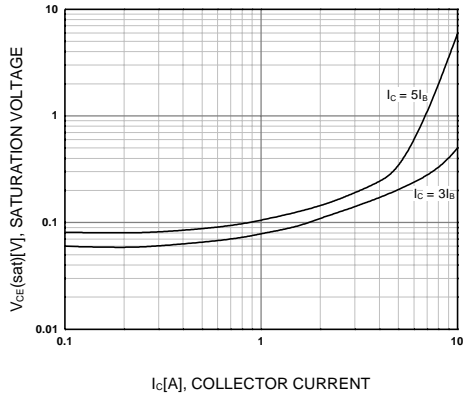


Figure 3. Collector-Emitter Saturation Voltage

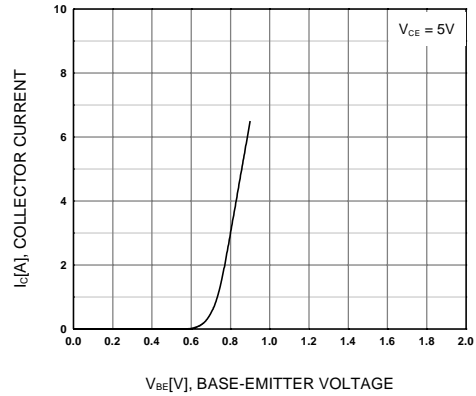


Figure 4. Base-Emitter On Voltage

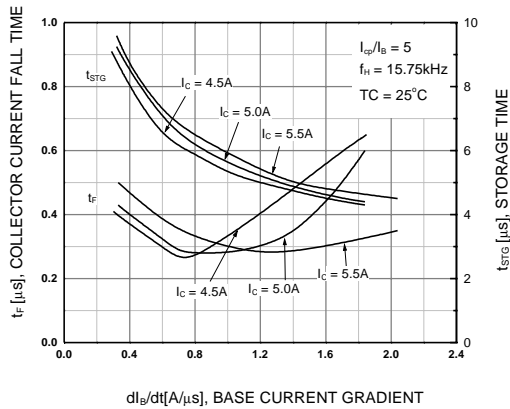


Figure 5. Switching Time

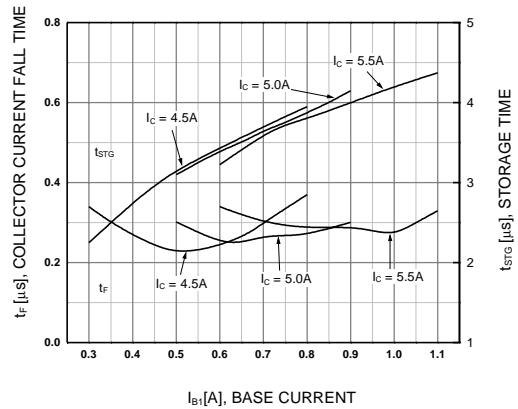


Figure 6. Switching Time

Typical Characteristics (Continued)

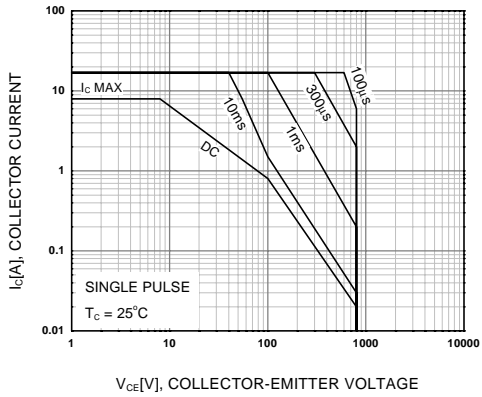


Figure 7. Safe Operating Area

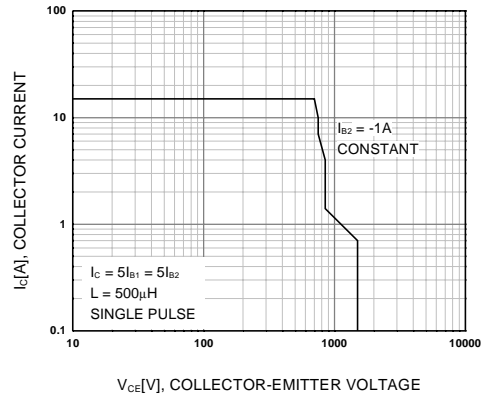


Figure 8. Reverse Bias Operating Area

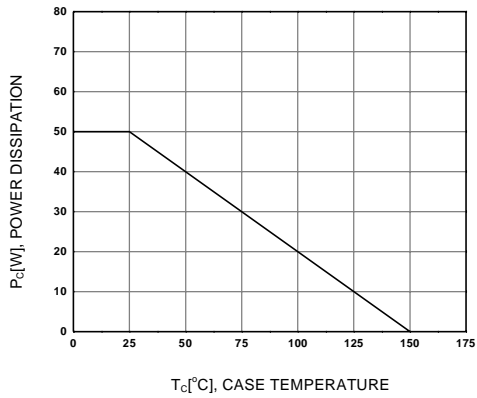
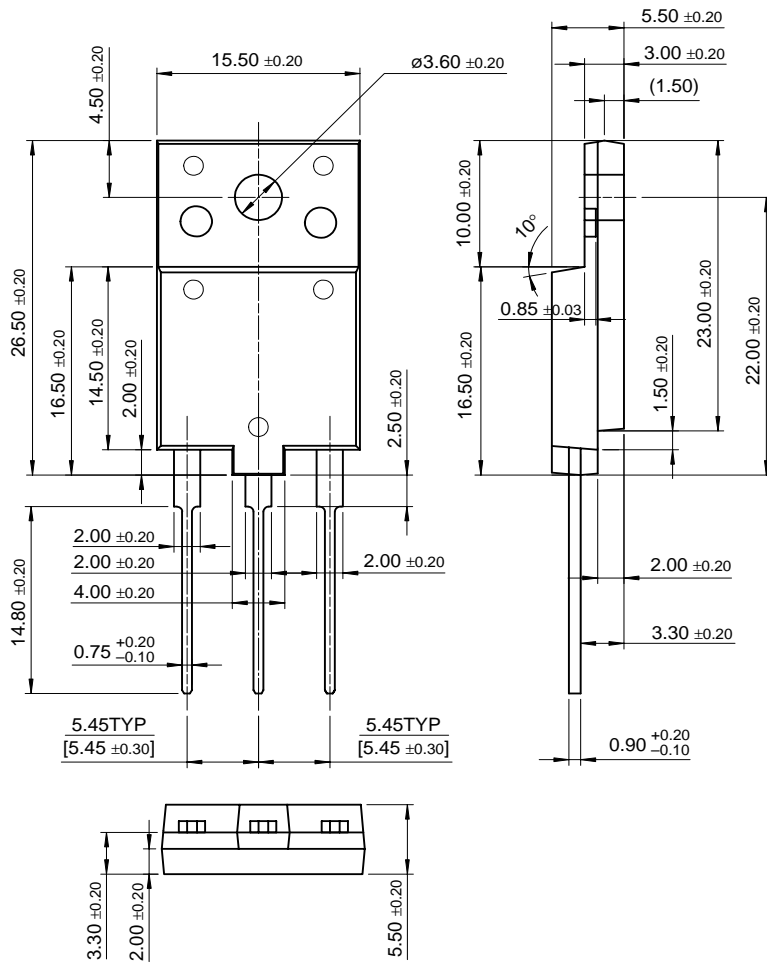


Figure 9. Power Derating

Package Demensions

KSD5703

TO-3PF



Dimensions in Millimeters

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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