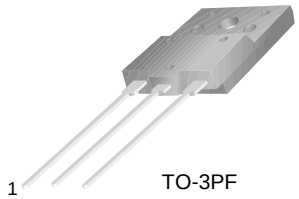
FAIRCHILD
SEMICONDUCTOR TM

KSD5703

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

- High Collector-Base Voltage : V_{CBO}=1500V
- High Switching Speed t_F = 0.3μs (Max.)
- For Color TV



TO-3PF

1.Base 2.Collector 3.Emitter

NPN Triple Diffused Planar Silicon Transistor

Absolute Maximum Ratings T_C=25°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°C)	70	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°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 = 33.3Ω		0.1	0.3	μs

Typical Characteristics

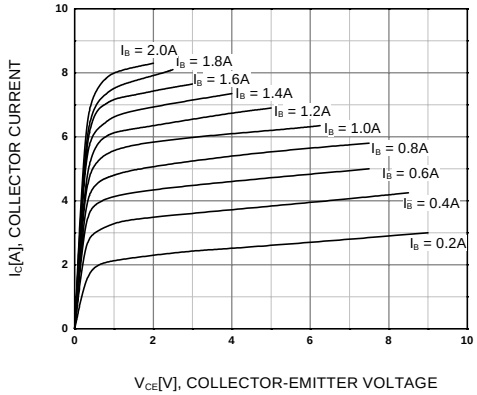


Figure 1. Static Characteristic

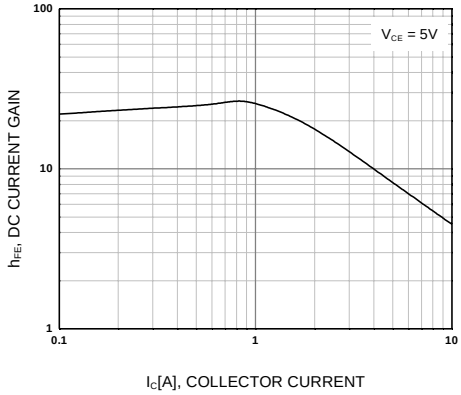


Figure 2. DC current Gain

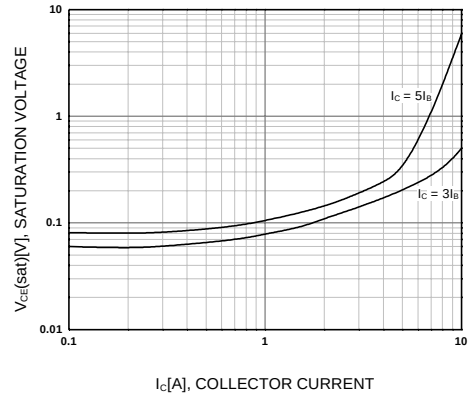


Figure 3. Collector-Emitter Saturation Voltage

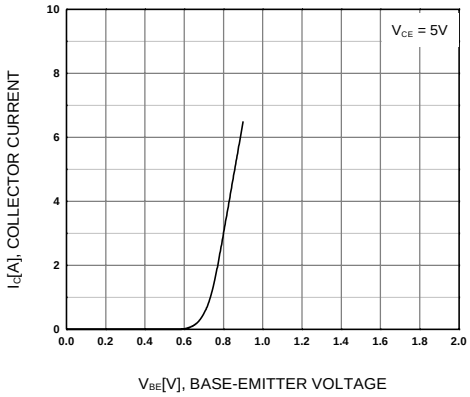


Figure 4. Base-Emitter On Voltage

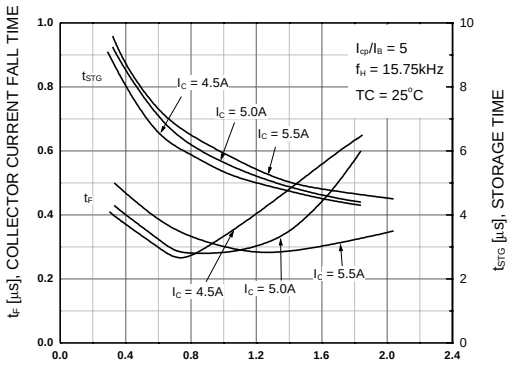


Figure 5. Switching Time

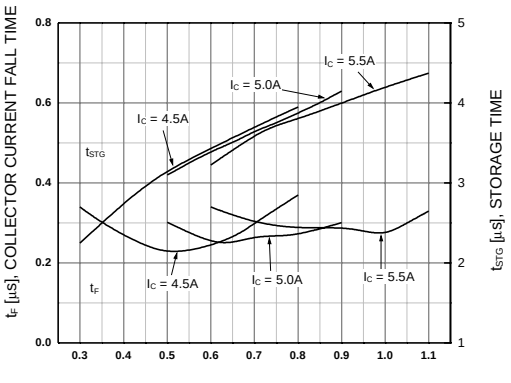


Figure 6. Switching Time

Typical Characteristics (Continued)

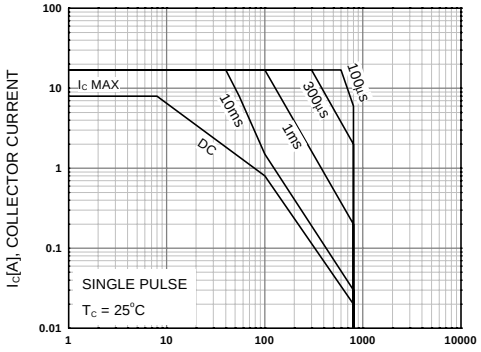


Figure 7. Safe Operating Area

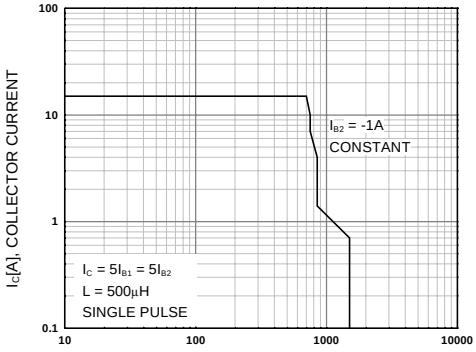


Figure 8. Reverse Bias Operating Area

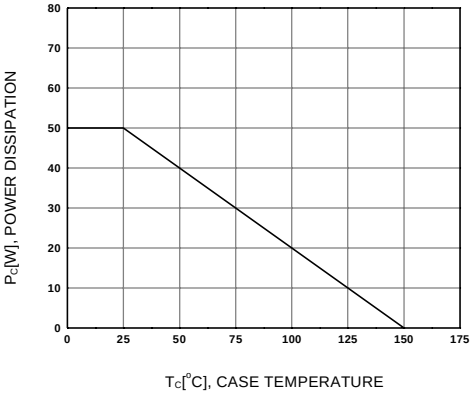
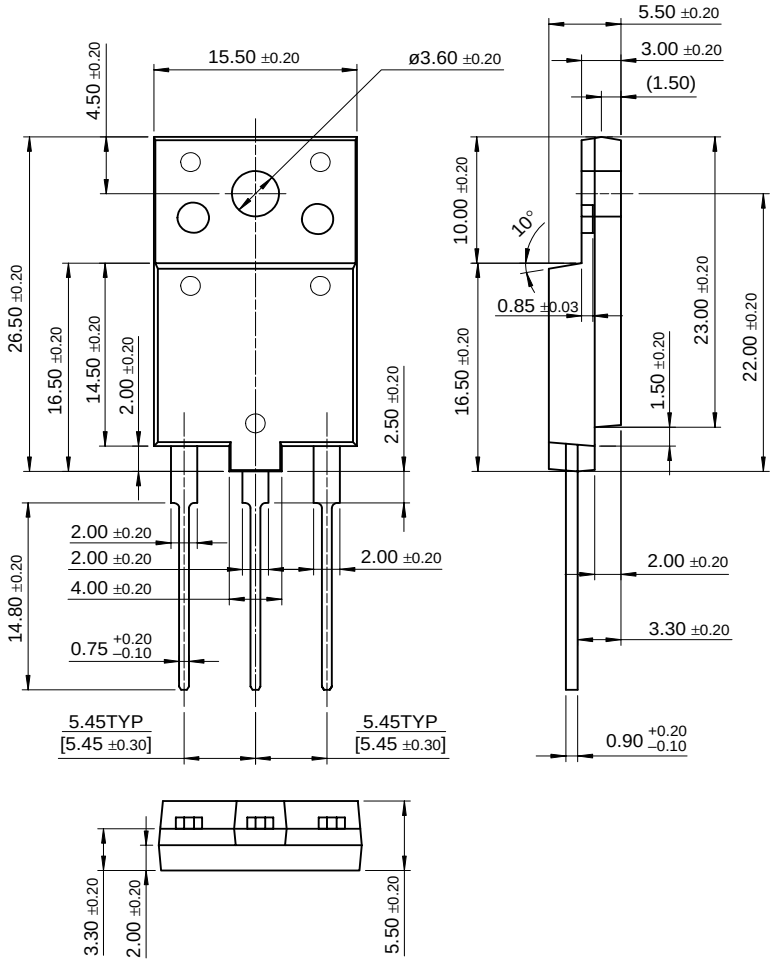


Figure 9. Power Derating

Package Demensions

TO-3PF



Dimensions in Millimeters

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