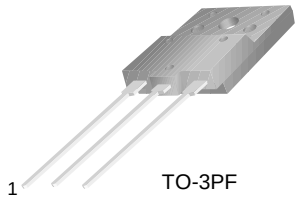
FAIRCHILD SEMICONDUCTOR™

KSC5803

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

- High Breakdown Voltage : BV_{CBO}=1500V
- High Speed Switching : t_F=0.1μs (Typ.)
- Wide S.O.A
- For C-Monitor(85KHz)



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)	12	A
I_{CP}	Collector Current (Pulse)	24	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_{CE}= 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 5.5		40 8.5	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 8A, I_B = 2A			3	V
V_{BE}(sat)	Base-Emitter Saturation Voltage	I_C = 8A, I_B = 2A			1.5	V
t_{STG}	Storage Time	V_{CC} = 200V, I_C = 7A I_{B1} = 1.4A, I_{B2}= - 2.8A R_L = 28.6Ω			4	μs
t_F	Fall Time				0.3	μs

Typical Characteristics

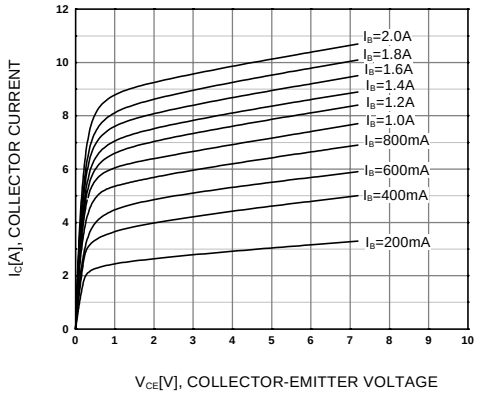


Figure 1. Static Characteristic

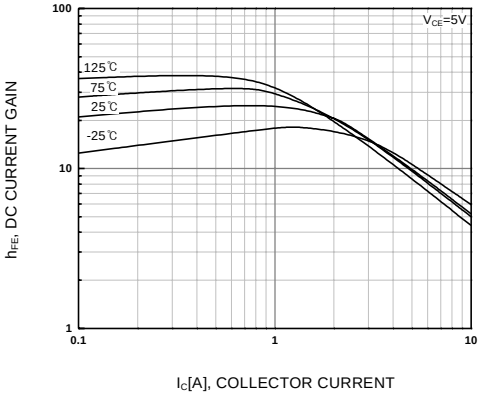


Figure 2. DC current Gain

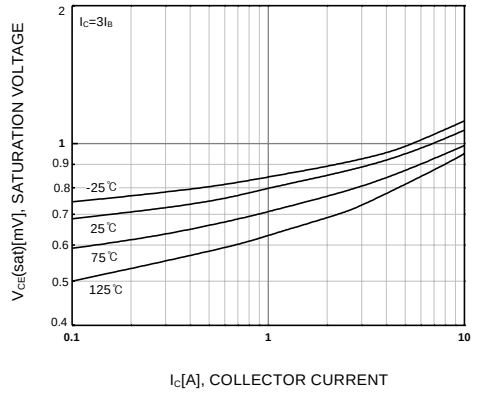


Figure 3. Base-Emitter Saturation Voltage

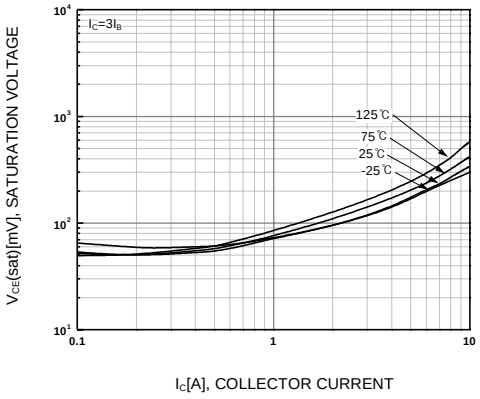


Figure 4. Collector-Emitter Saturation Voltage 1

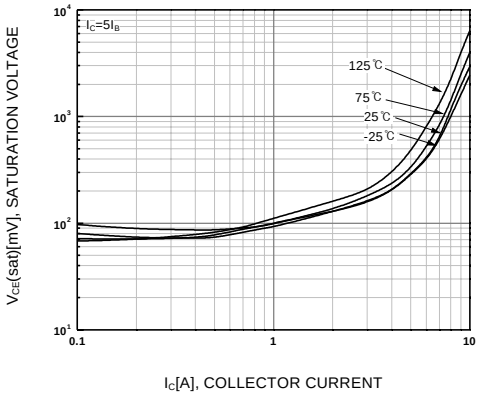


Figure 5. Collector-Emitter Saturation Voltage 2

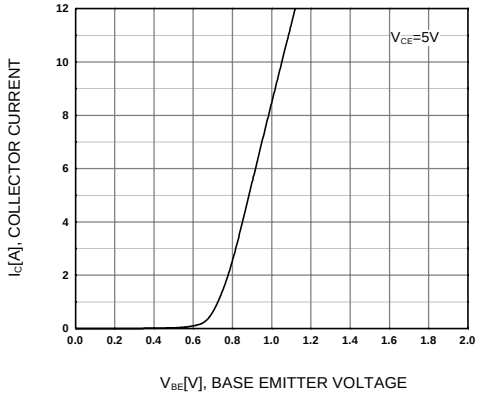


Figure 6. Base-Emitter On Voltage

Typical Characteristics (Continued)

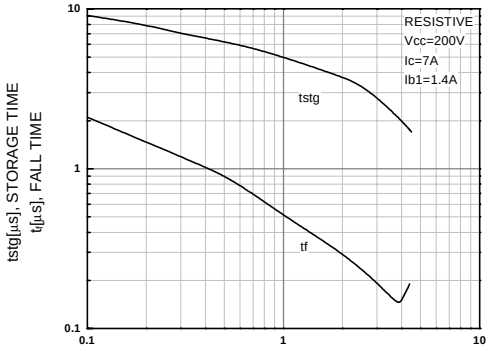


Figure 7. Switching Time

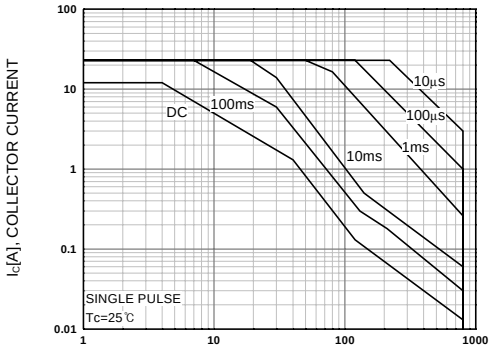


Figure 8. Safe Operating Area

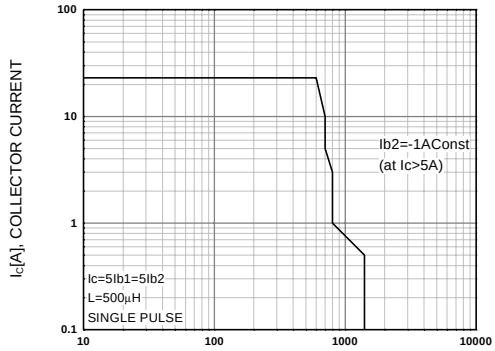


Figure 9. Reverse Bias Safe Operating Area

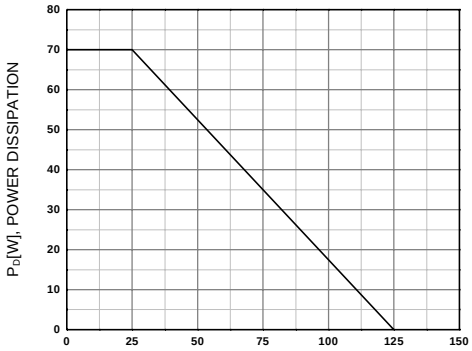
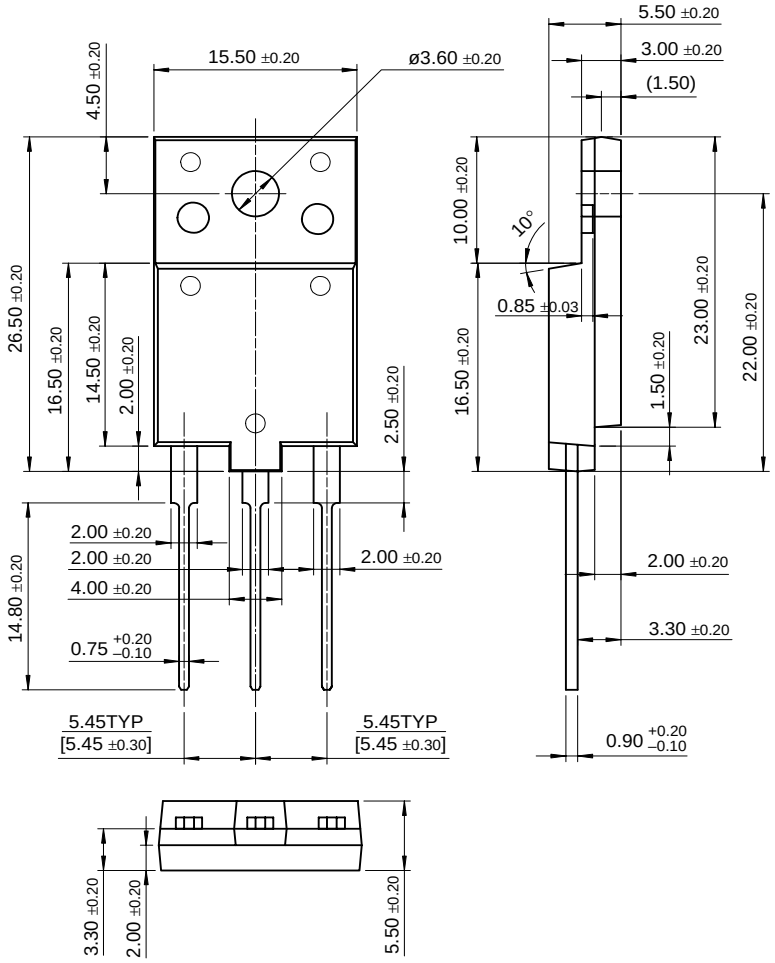


Figure 10. Power Derating

Package Demensions

TO-3PF



Dimensions in Millimeters

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