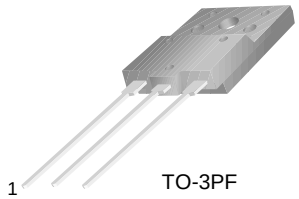
FAIRCHILD SEMICONDUCTOR™

KSC5088

High Definition Color Display Horizontal Deflection Output

- High Collector -Base Voltage : V_{CBO}=1500V
- High Speed Switching: t_F = 0.1μs (Typ.)



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)	8	A
I_{CP}	Collector Current (Pulse)	15	A
I_B	Base Current	4	A
P_C	Collector Dissipation (T_C=25°C)	50	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_{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 = 6A	8 5			
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 6A , I_B = 1.5A			5.0	V
V_{BE}(sat)	Base-Emitter Saturation Voltage	I_C = 6A , I_B = 1.5A			1.5	V
f_T	Current-Gain Bandwidth Product	V_{CE} = 10V, I_C = 1A		3		MHz
t_{STG}	Storage Time	V_{CC} = 200V, I_C = 6A, R_L=33.3Ω I_{B1} = 1.2A, I_{B2} = -2.4A			3.0	μs
t_F	Fall Time				0.2	μs

Thermal Characteristics T_C=25°C unless otherwise noted

Symbol	Characteristic	Max	Unit
$R_{\theta jC}$	Thermal Resistance, Junction to Case	2.49	°C/ W

Typical Characteristics

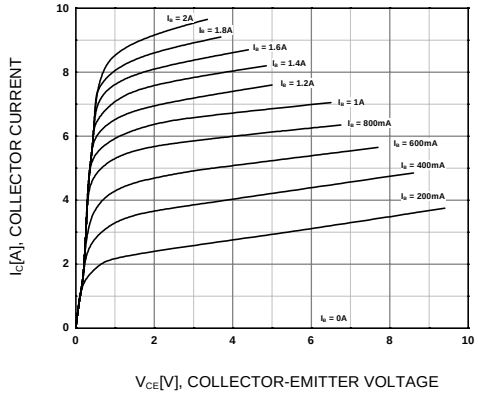


Figure 1. Static Characteristic

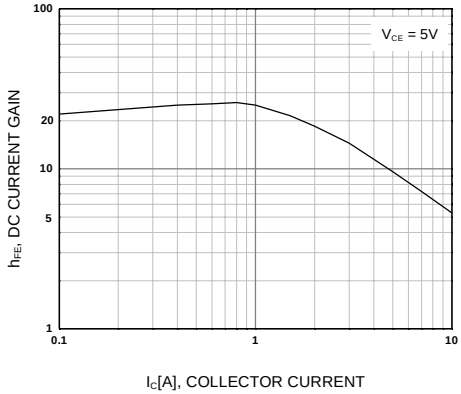


Figure 2. DC current Gain

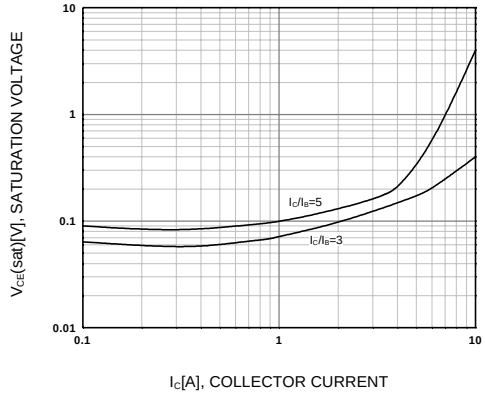


Figure 3. Collector-Emitter Saturation Voltage

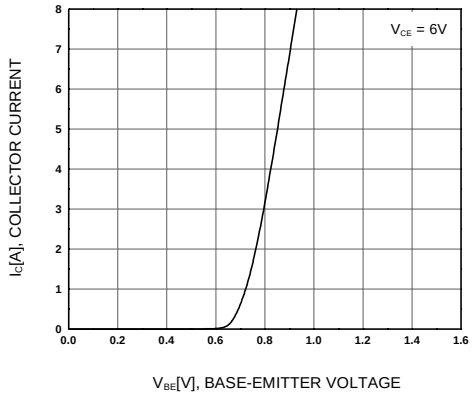


Figure 4. Base-Emitter On Voltage

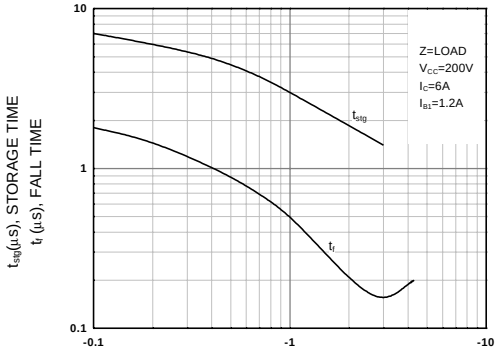


Figure 5. Switching Time

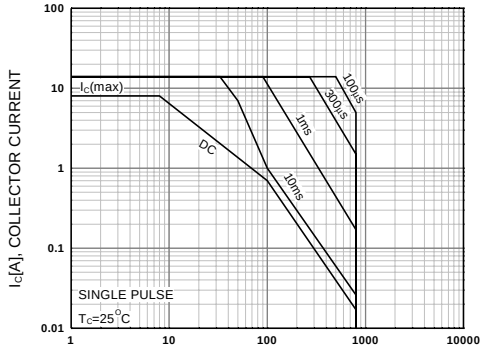


Figure 6. Safe Operating Area

Typical Characteristics (Continued)

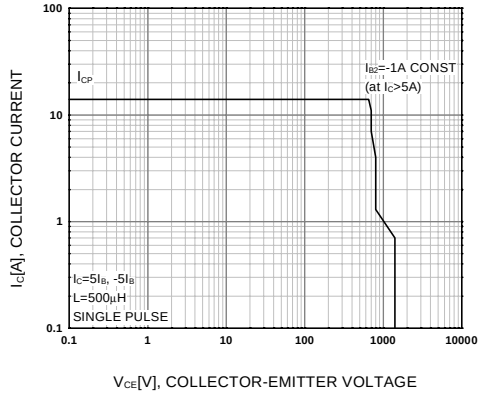


Figure 7. Reverse Safe Operating Area

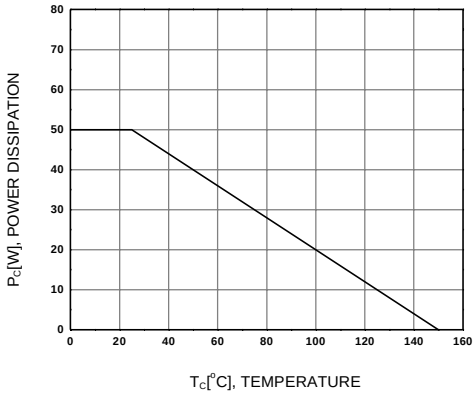
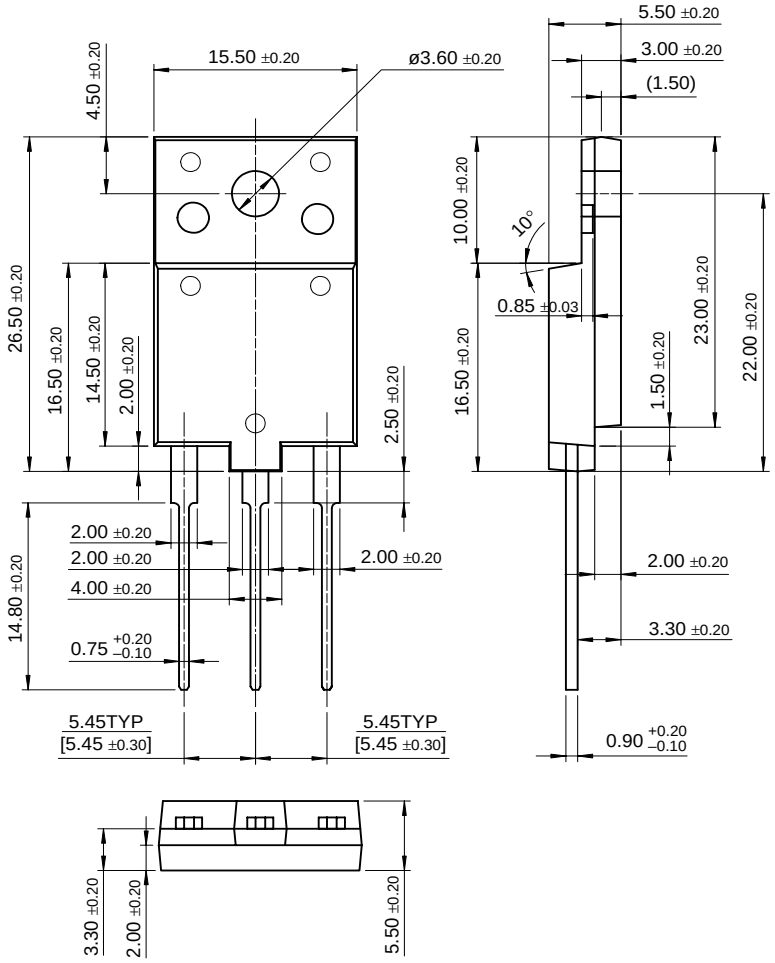


Figure 8. Power Derating

Package Demensions

TO-3PF



Dimensions in Millimeters

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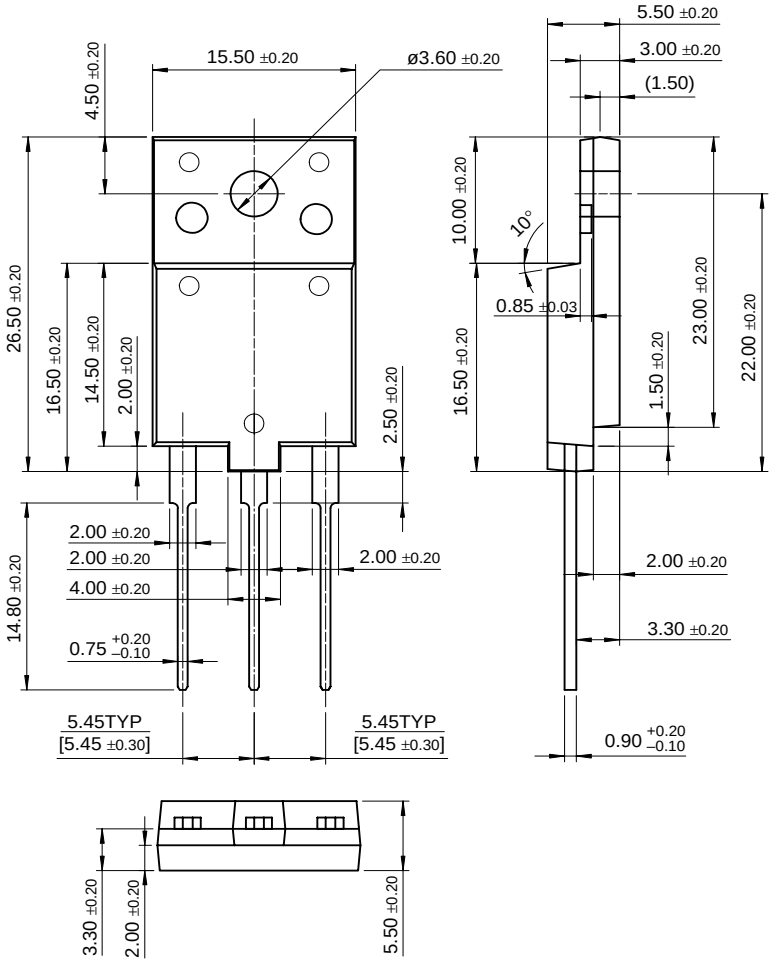

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