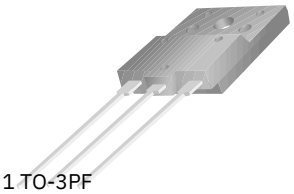
FAIRCHILD
SEMICONDUCTOR TM

KSC5803

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

- High Breakdown Voltage : BV=1500V
- High Speed Switching : t=0.1μs (Typ.)
- Wide S.O.A
- For C-Monitor(85KHz)



1 TO-3PF
1.Base 2.Collector 3.Emitter

NPN Triple Diffused Planar Silicon Transistor

Absolute Maximum Ratings

TC=25°C unless otherwise noted

Symbol	Parameter	Value	Units
VCBO	Collector-Base Voltage	1500	V
VCEO	Collector-Emitter Voltage	800	V
VEBO	Emitter-Base Voltage	6	V
IC	Collector Current (DC)	12	A
ICP	Collector Current (Pulse)	24	A
PC	Collector Dissipation (TC=25°C)	70	W
TJ	Junction Temperature	150	°C
TSTG	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics

TC=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
ICES	Collector Cut-off Current	VCE = 1400V, VBE=0			1	mA
ICBO	Collector Cut-off Current	VCE= 800V, IE = 0			10	μA
IEBO	Emitter Cut-off Current	VEB = 4V, IC = 0			1	mA
hFE1	DC Current Gain	VCE = 5V, IC = 1A	15		40	
hFE2		VCE = 5V, IC = 8A	5		8.5	
VCE(sat)	Collector-Emitter Saturation Voltage	IC = 8A, IB = 2A			3	V
VBE(sat)	Base-Emitter Saturation Voltage	IC = 8A, IB = 2A			1.5	V
tSTG	Storage Time	VCC = 200V, IC = 7A			4	μs
tF	Fall Time	IB1 = 1.4A, IB2= - 2.8A RL = 28.6Ω			0.3	μs

Typical Characteristics

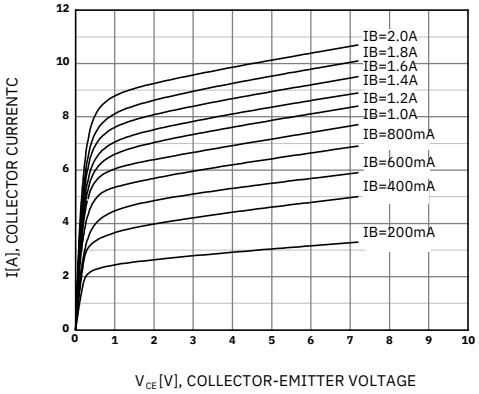


Figure 1. Static Characteristic

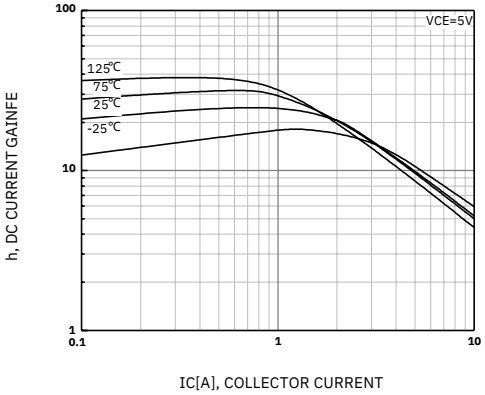


Figure 2. DC current Gain

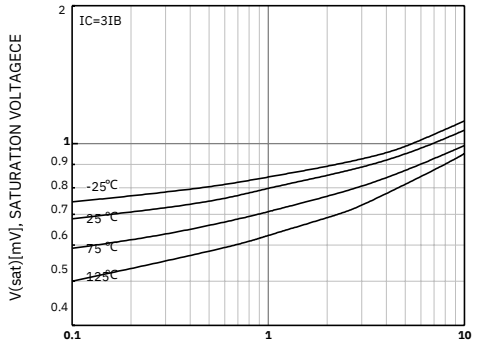


Figure 3. Base-Emitter Saturation Voltage

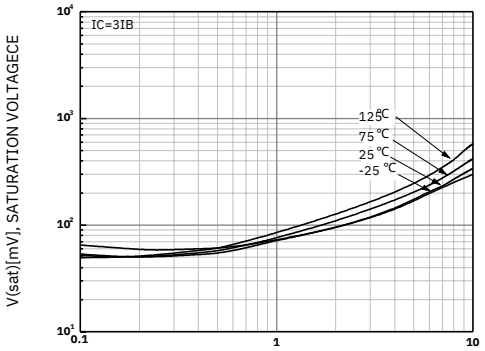


Figure 4. Collector-Emitter Saturation Voltage 1

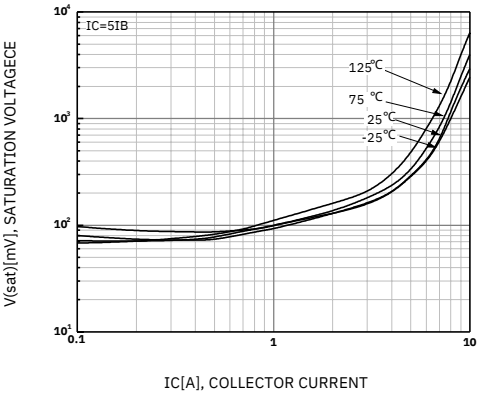


Figure 5. Collector-Emitter Saturation Voltage 2

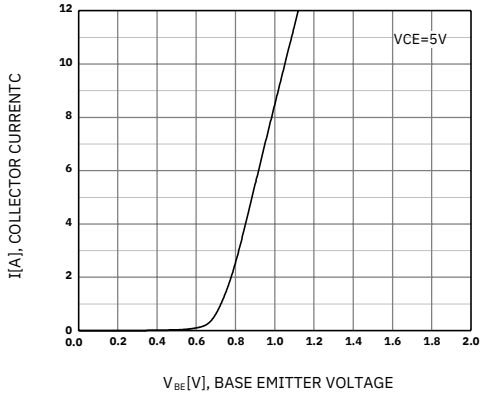


Figure 6. Base-Emitter On Voltage

Typical Characteristics (Continued)

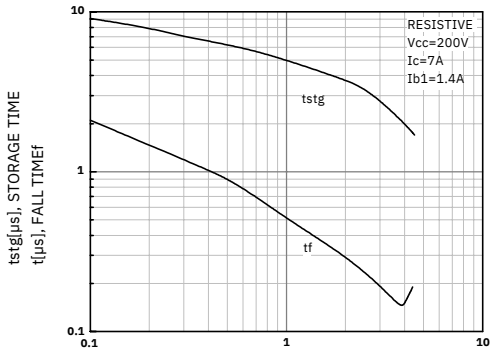


Figure 7. Switching Time

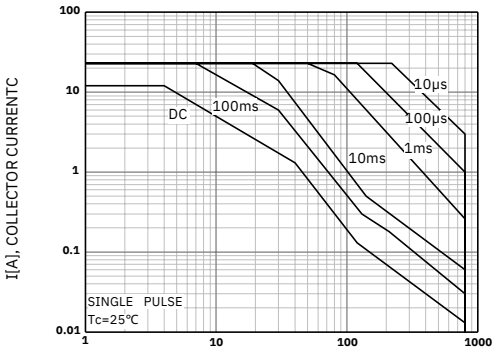


Figure 8. Safe Operating Area

Figure 9. Reverse Bias Safe Operating Area

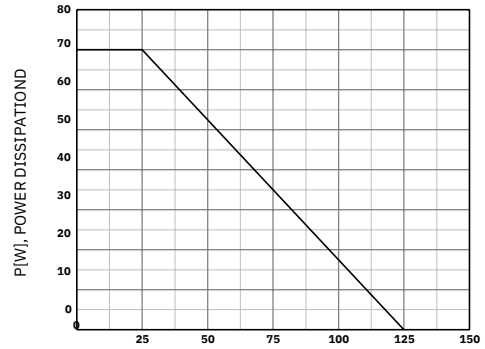
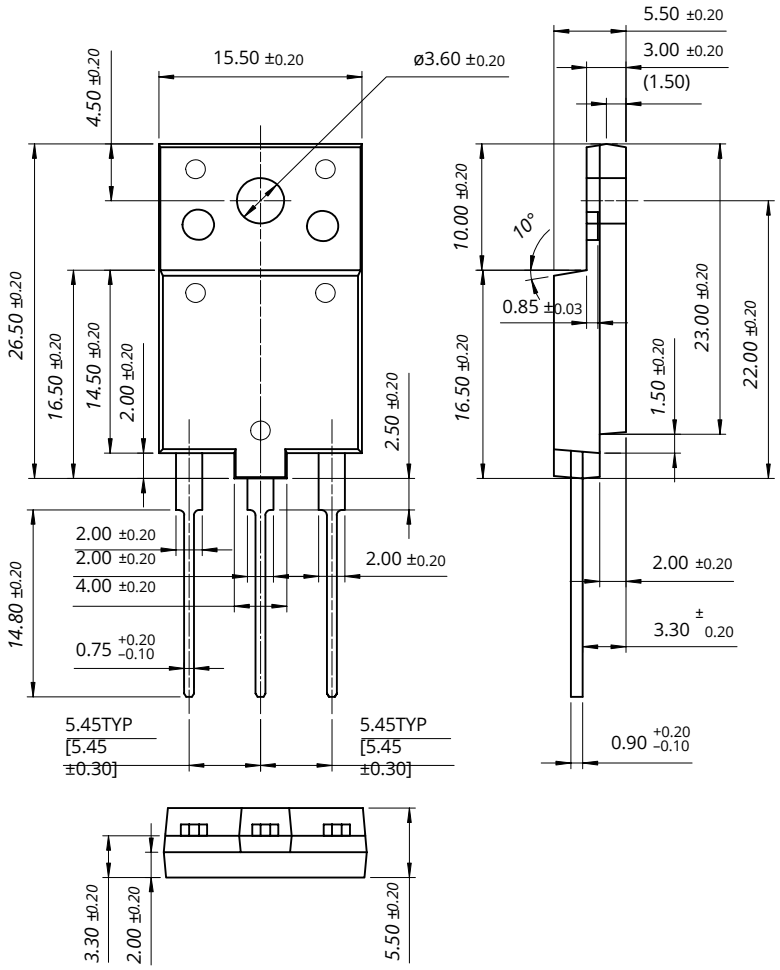


Figure 10. Power Derating

Package Demensions

TO-3PF



Dimensions in Millimeters

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