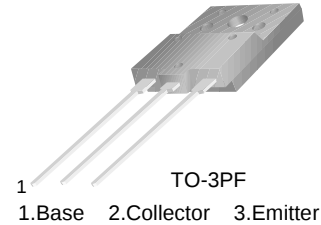


KSC5803

KSC5803

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

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



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)	12	A
I_{CP}	Collector Current (Pulse)	24	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	$V_{CE}= 800V, I_E = 0$			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	$V_{CC} = 200V, I_C = 7A$			4	μs
t_F	Fall Time	$I_{B1} = 1.4A, I_{B2}= - 2.8A$ $R_L = 28.6\Omega$			0.3	μs

Typical Characteristics

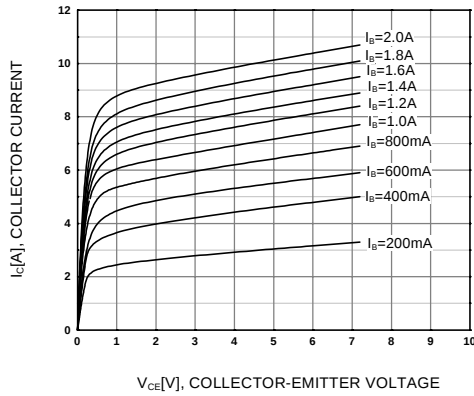


Figure 1. Static Characteristic

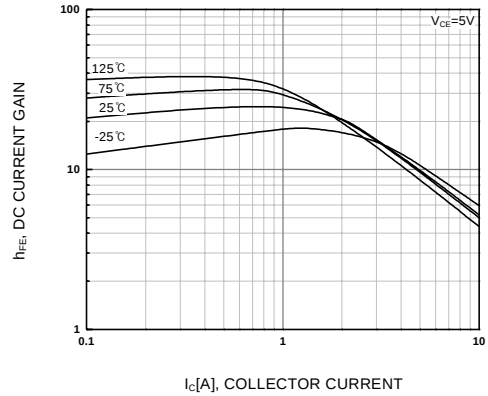


Figure 2. DC current Gain

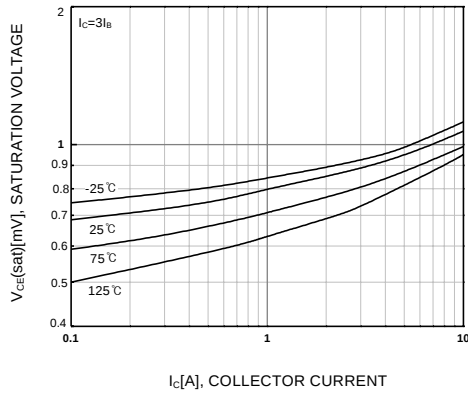


Figure 3. Base-Emitter Saturation Voltage

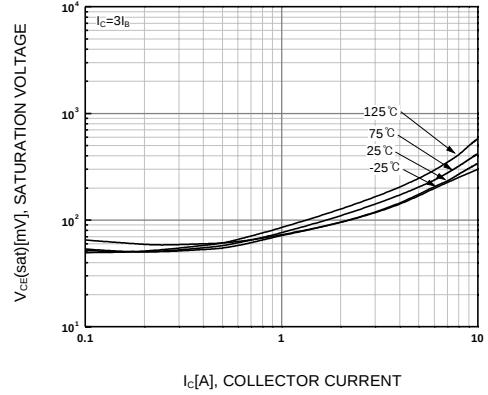


Figure 4. Collector-Emitter Saturation Voltage 1

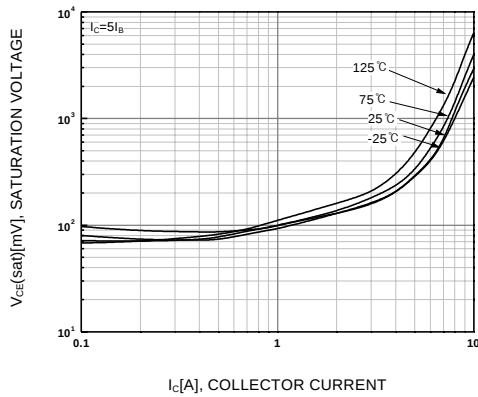


Figure 5. Collector-Emitter Saturation Voltage 2

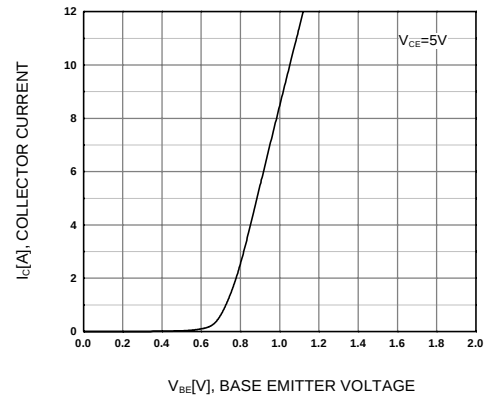


Figure 6. Base-Emitter On Voltage

Typical Characteristics (Continued)

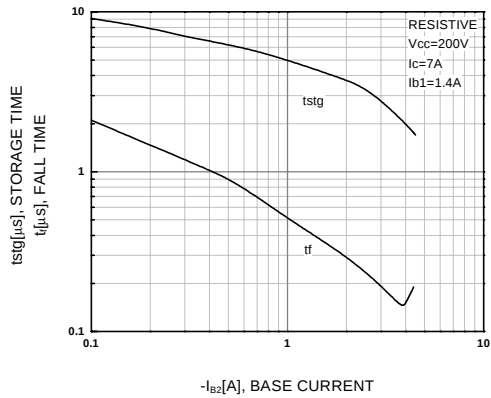


Figure 7. Switching Time

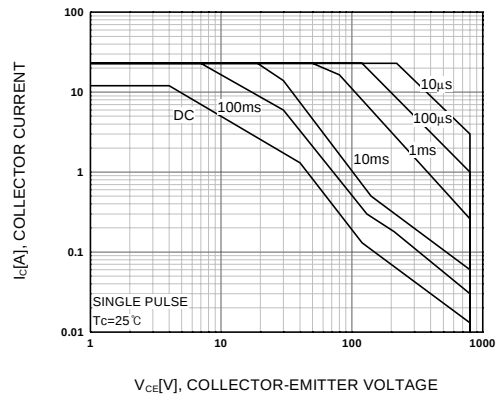


Figure 8. Safe Operating Area

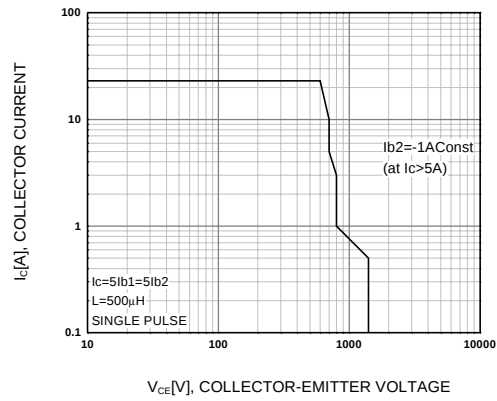


Figure 9. Reverse Bias Safe Operating Area

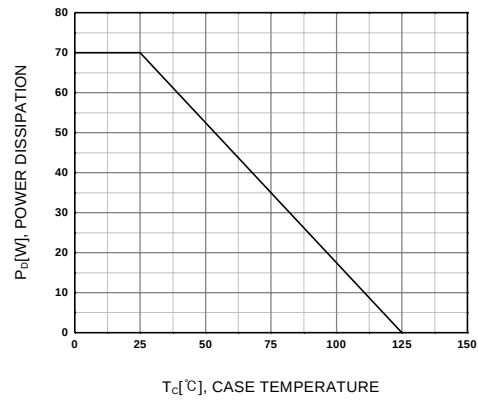


Figure 10. Power Derating

KSC5803

Technical drawing of a mechanical part, showing three views: front view, side view, and top view. Dimensions are given in millimeters (mm) with tolerances.

Front View Dimensions:

- Overall width: 15.50 ± 0.20
- Overall height: 26.50 ± 0.20
- Top section height: 4.50 ± 0.20
- Section height: 15.50 ± 0.20
- Section height: 14.50 ± 0.20
- Section height: 2.00 ± 0.20
- Section height: 2.50 ± 0.20
- Pin diameter: $\varnothing 3.60 \pm 0.20$
- Pin height: 14.80 ± 0.20
- Pin diameter: 2.00 ± 0.20
- Pin diameter: 2.00 ± 0.20
- Pin diameter: 4.00 ± 0.20
- Pin diameter: $0.75^{+0.20}_{-0.10}$
- Material: 5.45 TYP [5.45 ± 0.30]

Side View Dimensions:

- Overall width: 22.00 ± 0.20
- Section height: 10.00 ± 0.20
- Section height: 16.50 ± 0.20
- Section height: 23.00 ± 0.20
- Section height: 1.50 ± 0.20
- Section height: 0.85 ± 0.03
- Section height: 1.50 ± 0.20
- Section height: 2.00 ± 0.20
- Section height: 3.30 ± 0.20
- Section height: $0.90^{+0.20}_{-0.10}$
- Chamfer angle: 10°

Top View Dimensions:

- Overall width: 5.50 ± 0.20
- Section width: 3.30 ± 0.20
- Section width: 2.00 ± 0.20
- Section width: 5.45 ± 0.30

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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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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