

FJAF6812

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High Voltage Color Display Horizontal Deflection Output

- High Collector-Base Breakdown Voltage : $BV_{CBO} = 1500V$
- High Switching Speed : $t_F(\text{typ.}) = 0.1\mu s$
- For Color Monitor



NPN Triple Diffused Planar Silicon Transistor

Absolute Maximum Ratings $T_C = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Rating	Units
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	750	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	60	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

* Pulse Test: $PW = 300\mu s$, duty Cycle=2% Pulsed

Electrical Characteristics $T_C = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
I_{CES}	Collector Cut-off Current	$V_{CB} = 1400V, R_{BE} = 0$			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
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 500\mu A, I_C = 0$	6			V
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = 5V, I_C = 1A$ $V_{CE} = 5V, I_C = 8A$	10 5		40 8	
$V_{CE(sat)}$	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	$V_{CC} = 200V, I_C = 7A, R_L = 30\Omega$ $I_{B1} = 1.4A, I_{B2} = -2.8A$			3	μs
t_F^*	Fall Time				0.2	μs

* Pulse Test: $PW = 20\mu s$, duty Cycle=1% Pulsed

Thermal Characteristics $T_C = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Typ	Max	Units
$R_{\theta JC}$	Thermal Resistance, Junction to Case	1.4	2.08	$^\circ C/W$

Typical Characteristics

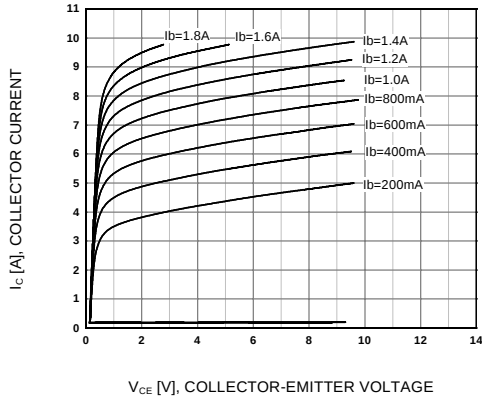


Figure 1. Static Characteristics

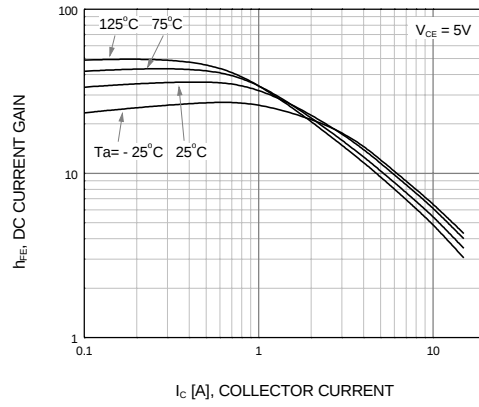


Figure 2. DC Current Gain

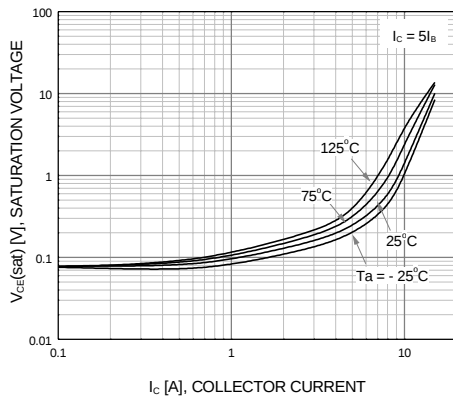


Figure 3. Collector-Emitter Saturation Voltage

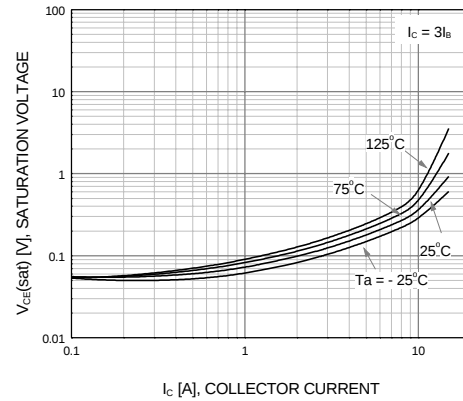


Figure 4. Collector-Emitter Saturation Voltage

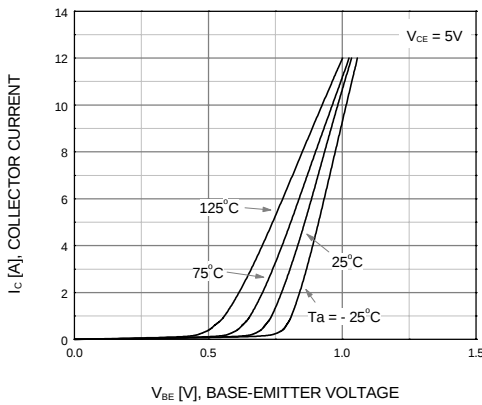


Figure 5. Base-Emitter On Voltage

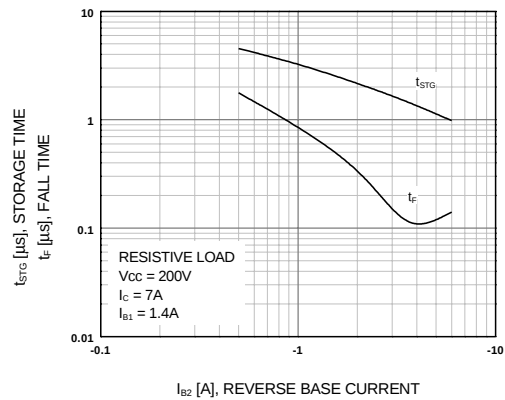


Figure 6. Switching Time

Typical Characteristics (Continued)

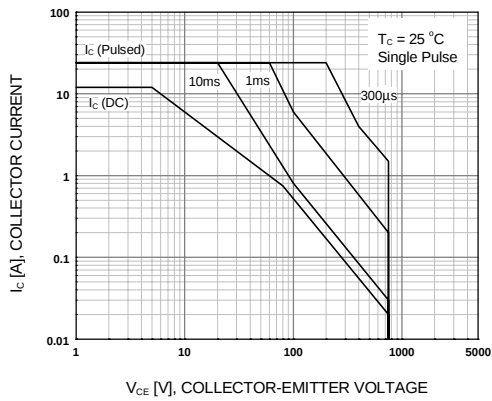


Figure 7. Forward Bias Safe Operating Area

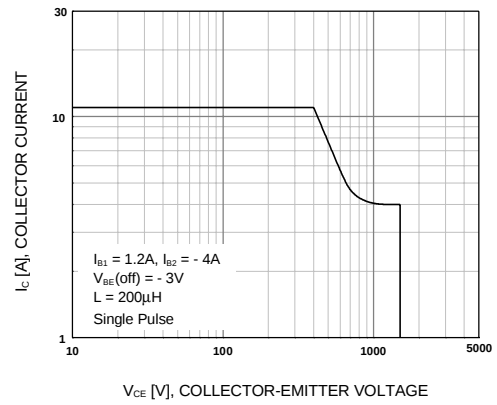


Figure 8. Reverse Bias Safe Operating Area

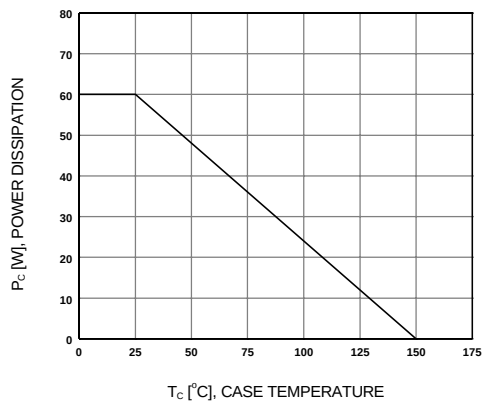


Figure 9. Power Derating

Technical drawing of a mechanical part, showing three views: front, side, and top. 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
- Central slot width: 2.00 ± 0.20
- Slot depth: 2.50 ± 0.20
- Pin diameter: $\varnothing 3.60 \pm 0.20$
- Pin height (from slot bottom): 14.80 ± 0.20
- Pin diameter (from top view): 5.45 TYP [5.45 ± 0.30]

Side View Dimensions:

- Overall width: 5.50 ± 0.20
- Overall height: 22.00 ± 0.20
- Top section height: 5.50 ± 0.20
- Chamfer angle: 10°
- Chamfer width: 0.85 ± 0.03
- Pin height (from slot bottom): 14.80 ± 0.20
- Pin diameter (from top view): 5.45 TYP [5.45 ± 0.30]

Top View Dimensions:

- Overall width: 14.80 ± 0.20
- Overall height: 5.50 ± 0.20
- Pin diameter: 5.45 TYP [5.45 ± 0.30]

Rev. B1, May 2001

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