

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



TO-3PF

1
1.Base 2.Collector 3.Emitter

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

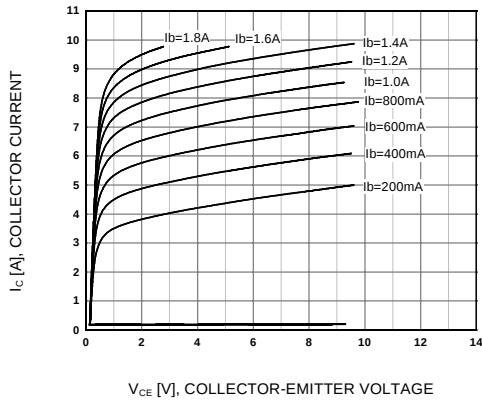


Figure 1. Static Characteristics

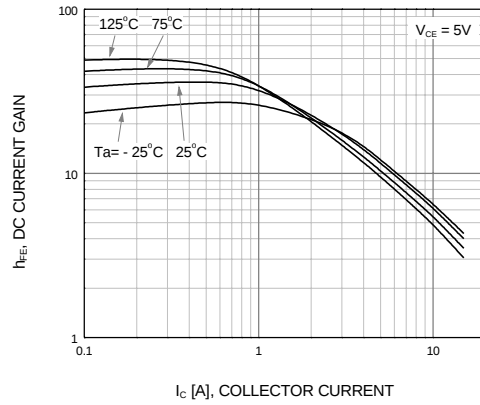


Figure 2. DC Current Gain

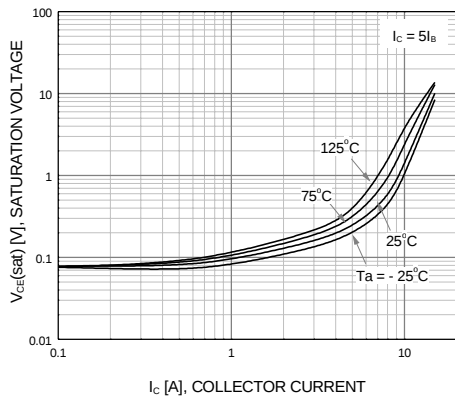


Figure 3. Collector-Emitter Saturation Voltage

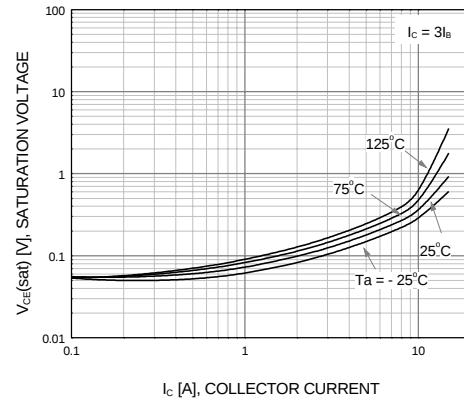


Figure 4. Collector-Emitter Saturation Voltage

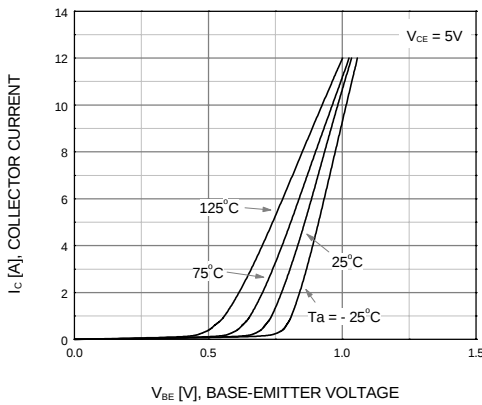


Figure 5. Base-Emitter On Voltage

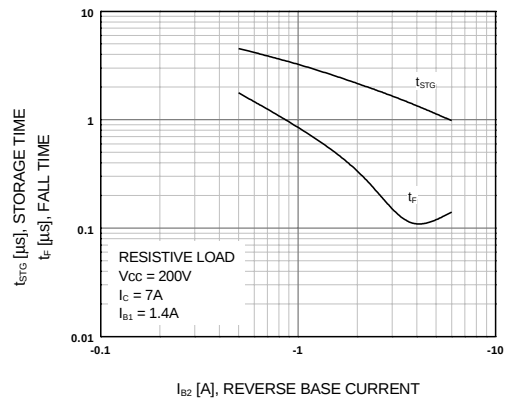


Figure 6. Switching Time

Typical Characteristics (Continued)

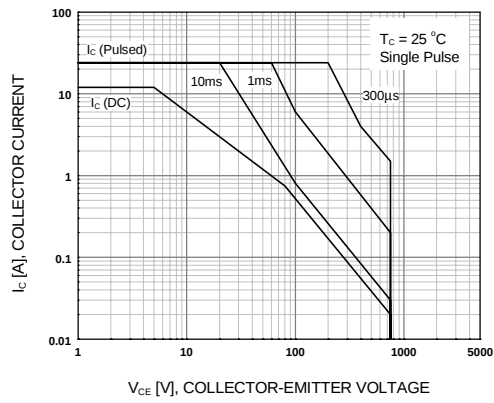


Figure 7. Forward Bias Safe Operating Area

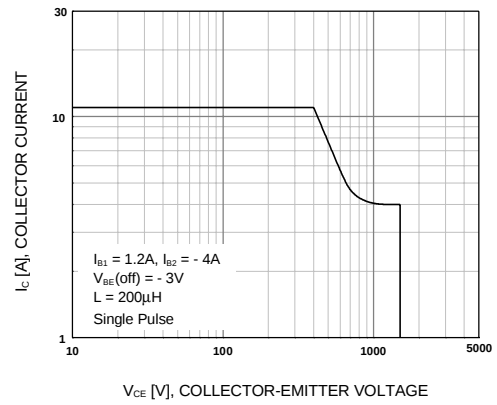


Figure 8. Reverse Bias Safe Operating Area

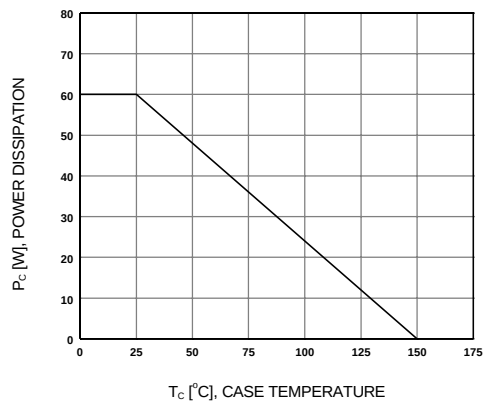


Figure 9. Power Derating

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