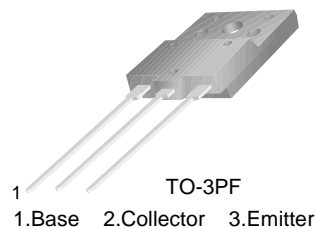


KSC5803D

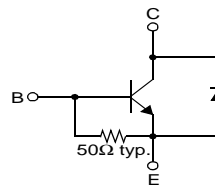
KSC5803D

High Voltage Color Display Horizontal Deflection Output (Damper Diode Built In)

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



Equivalent Circuit



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	$V_{CB}= 800V, I_E = 0$			10	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 4V, I_C = 0$	50		250	mA
h_{FE1}	DC Current Gain	$V_{CE} = 5V, I_C = 1A$	15		40	
h_{FE2}		$V_{CE} = 5V, I_C = 8A$	7		10	
$V_{CE(sat)}$	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	$V_{CC} = 200V, I_C = 7A$ $I_{B1} = 1.4A, I_{B2} = - 2.8A$ $R_L = 28.6\Omega$			4	μs
t_F	Fall Time				0.3	μs
V_F	Damper Diode Turn On Voltage	$I_F = 8A$			2	V

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

Symbol	Item	Max	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case	1.79	$^\circ C/W$

Typical Characteristics

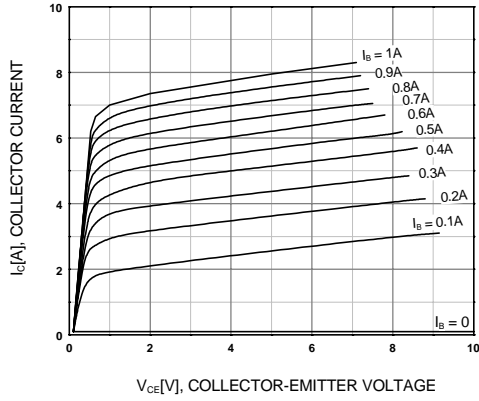


Figure 1. Static Characteristic

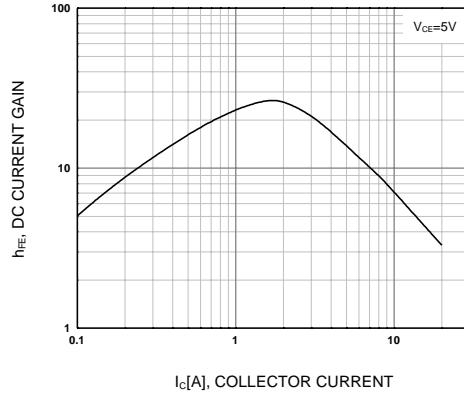


Figure 2. DC current Gain

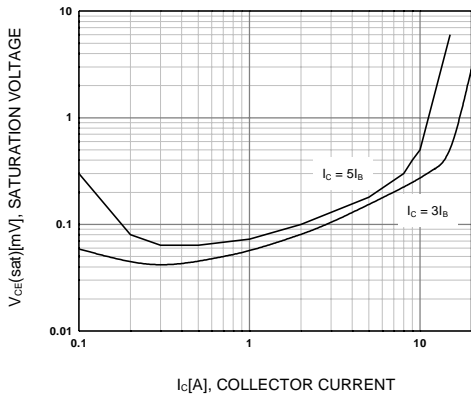


Figure 3. Collector-Emitter Saturation Voltage

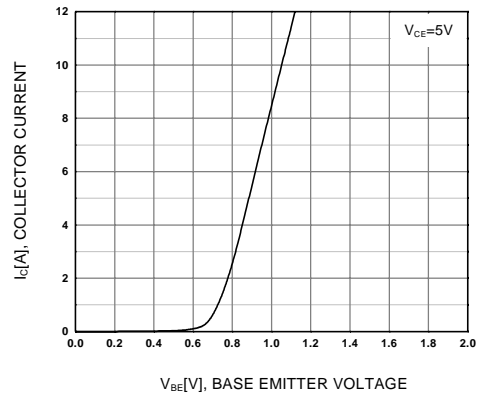


Figure 4. Base-Emitter On Voltage

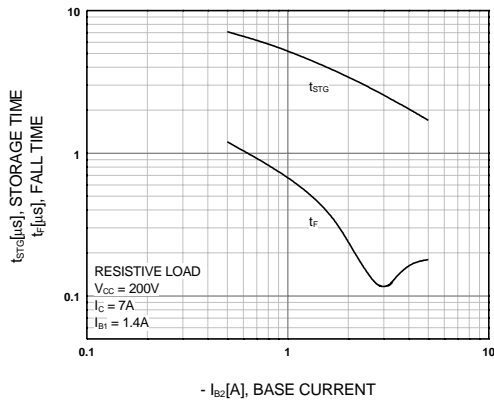


Figure 5. Switching Time

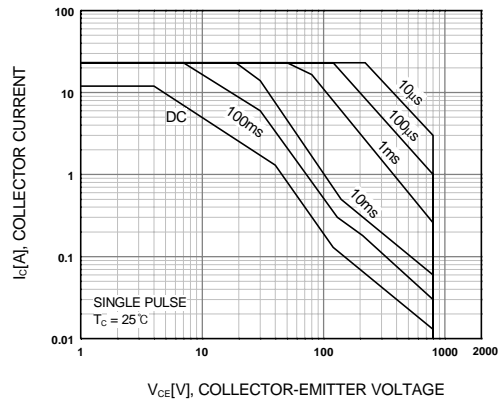


Figure 6. Safe Operating Area

Typical Characteristics (Continued)

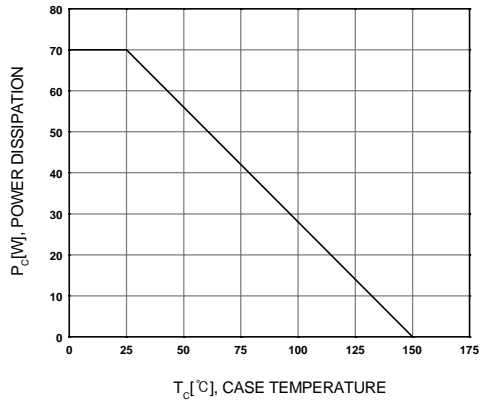
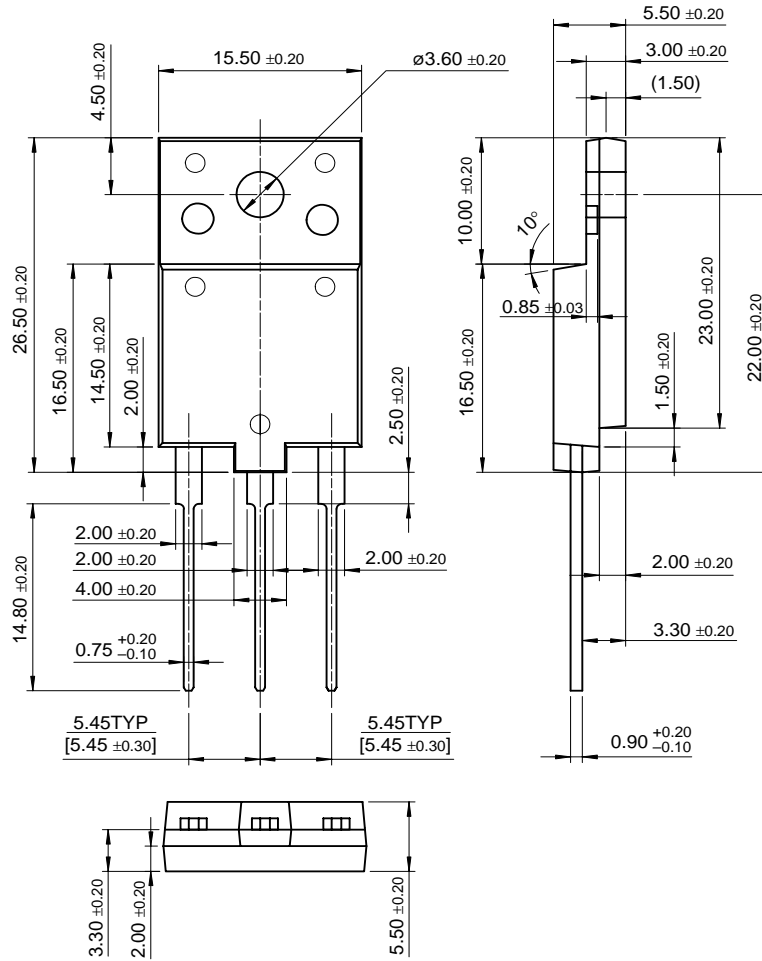


Figure 7. Power Derating

Package Dimensions

KSC5803D

TO-3PF



Dimensions in Millimeters

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