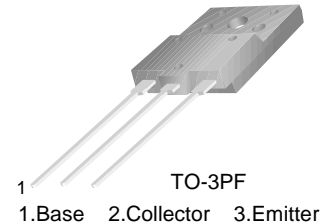


## KSC5803D

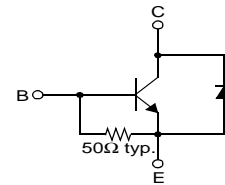
KSC5803D

### 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	$\mu A$
$I_{EBO}$	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	$\mu s$
$t_F$	Fall Time				0.3	$\mu s$
$V_F$	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

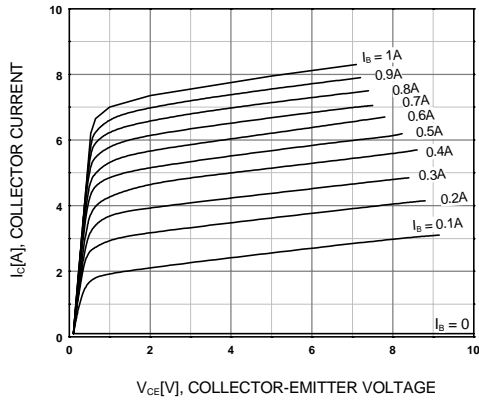


Figure 1. Static Characteristic

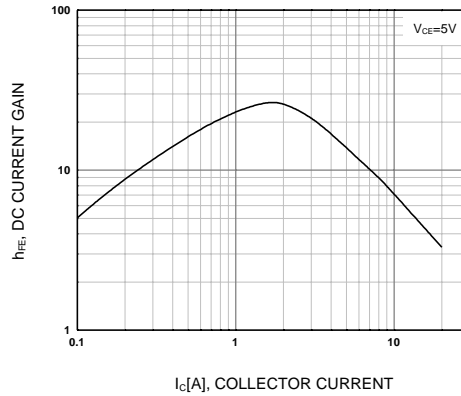


Figure 2. DC current Gain

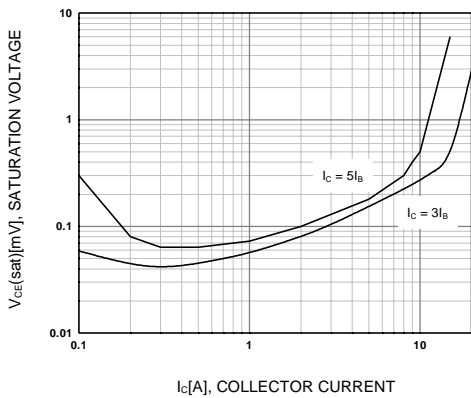


Figure 3. Collector-Emitter Saturation Voltage

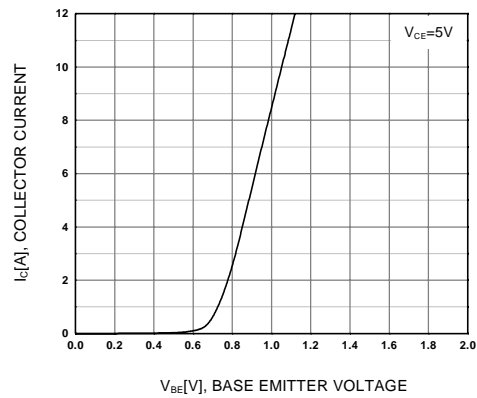


Figure 4. Base-Emitter On Voltage

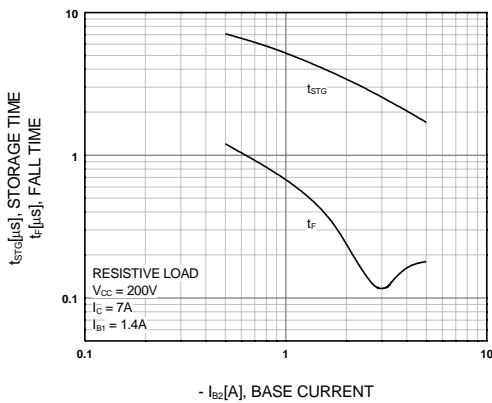


Figure 5. Switching Time

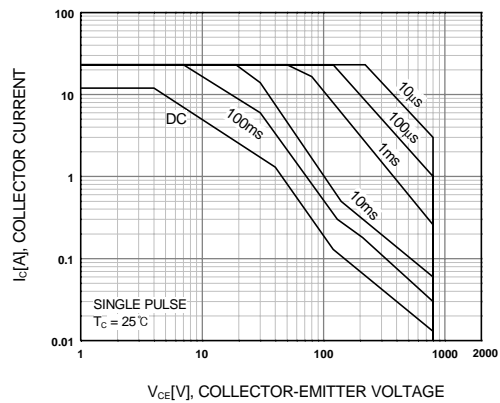


Figure 6. Safe Operating Area

### Typical Characteristics (Continued)

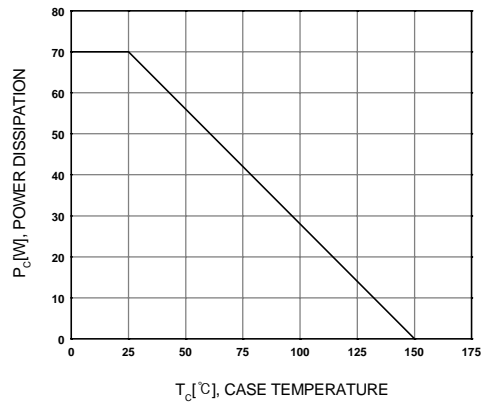
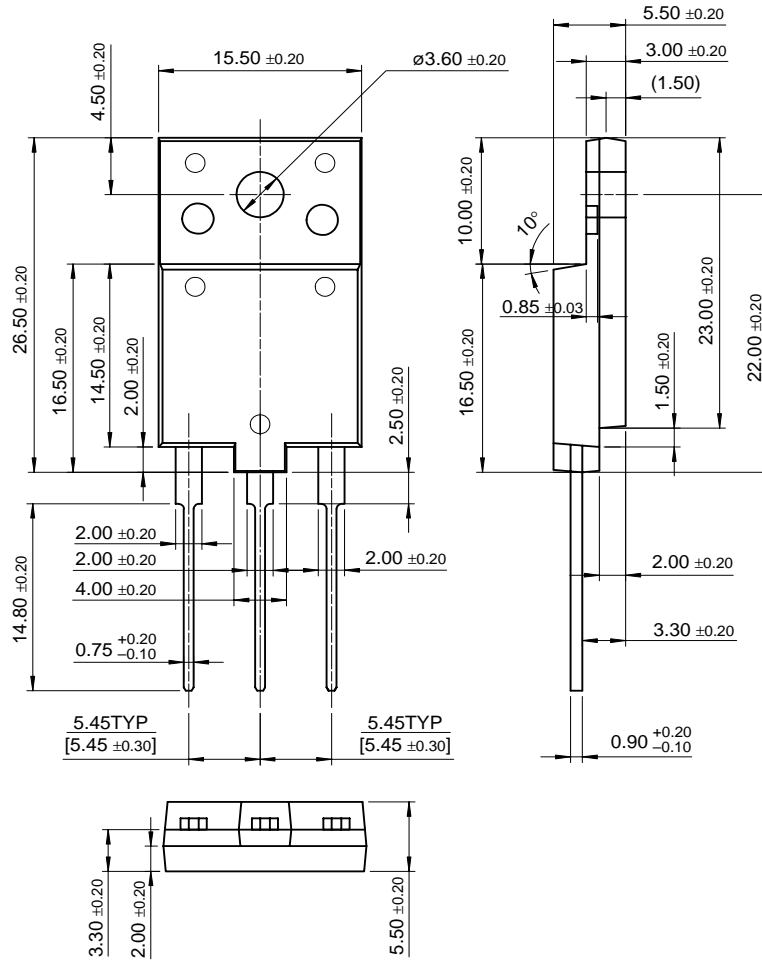


Figure 7. Power Derating

# Package Dimensions

## TO-3PF



Dimensions in Millimeters

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