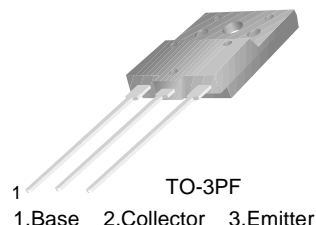


# KSC5802D

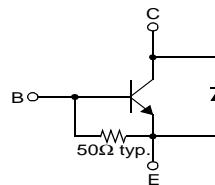
KSC5802D

## High Voltage Color Display Horizontal Deflection Output (Built In 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(69KHz)



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)	10	A
$I_{CP}$	Collector Current (Pulse)	30	A
$P_C$	Collector Dissipation ( $T_C=25^\circ C$ )	60	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	
$h_{FE2}$	DC Current Gain	$V_{CE} = 5V, I_C = 6A$	7		11.5	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.5A$			3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.5A$			1.5	V
$t_f$	Fall Time	$V_{CC} = 200V, I_C = 6A$ $I_{B1} = 1.2A, I_{B2} = - 2.4A$ $R_L = 33.3\Omega$		0.1	0.3	$\mu s$
$V_F$	Damper Diode Turn On Voltage	$I_F = 6A$			2	V

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

Symbol	Item	Max	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case	2.08	$^\circ C/W$

# Typical Characteristics

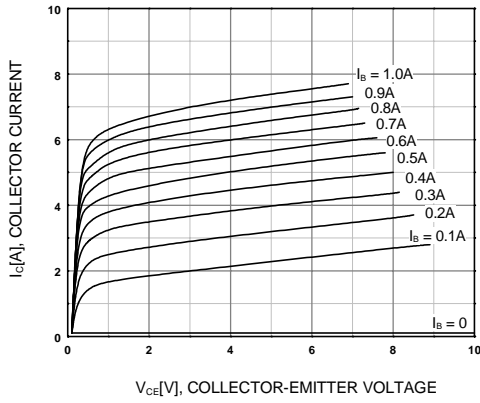


Figure 1. Static Characteristic

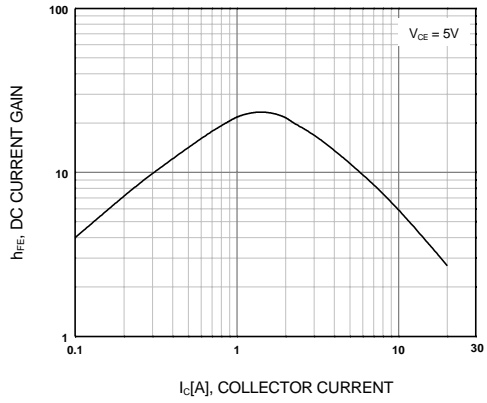


Figure 2. DC current Gain

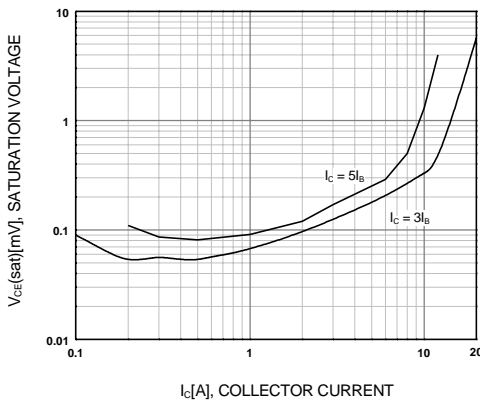


Figure 3. Collector-Emitter Saturation Voltage

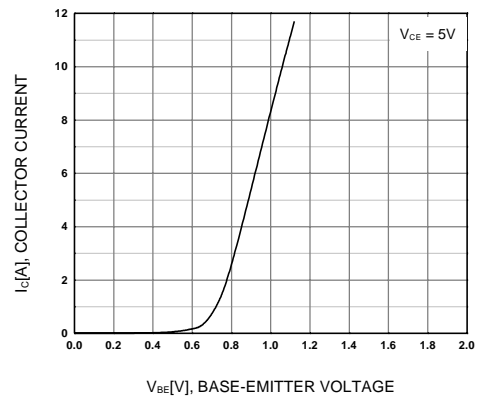


Figure 4. Base-Emitter On Voltage

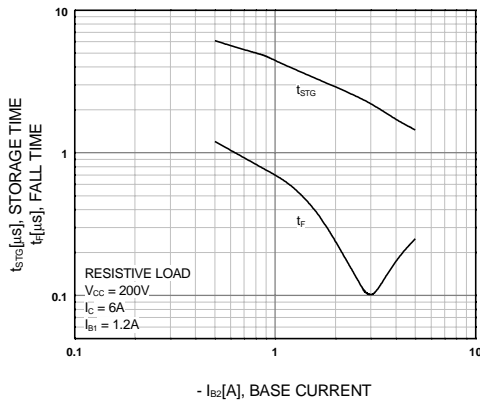


Figure 5. Switching Time

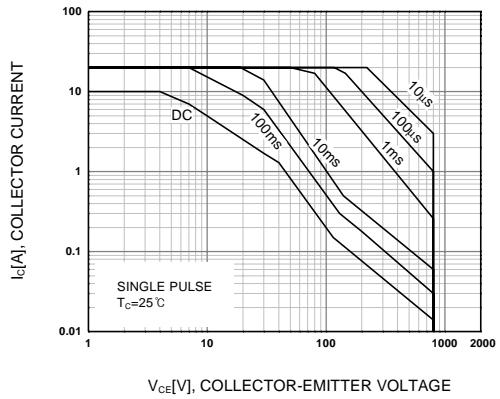


Figure 6. Safe Operating Area

# Typical Characteristics (Continued)

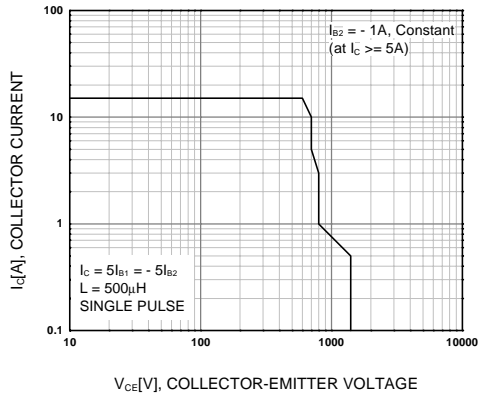


Figure 7. Reverse Bias Safe Operating Area

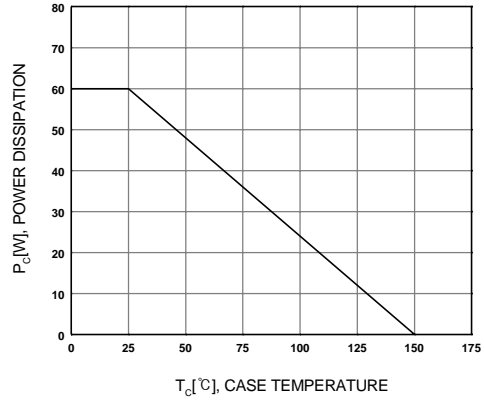
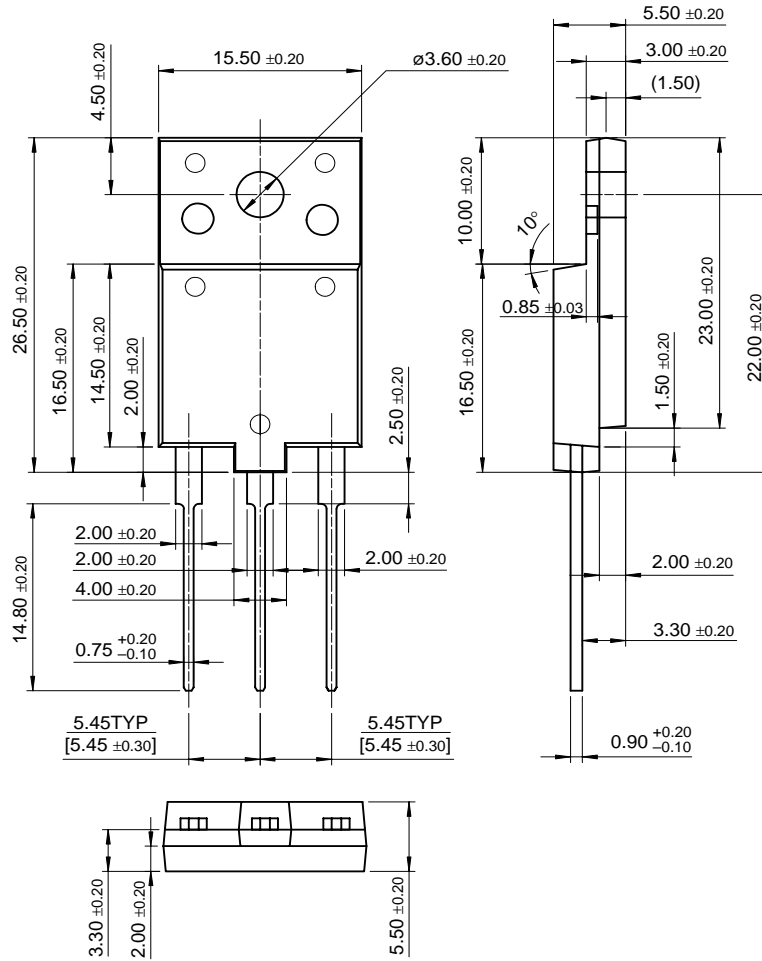


Figure 8. Power Derating

# Package Dimensions

KSC5802D

## TO-3PF



Dimensions in Millimeters

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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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