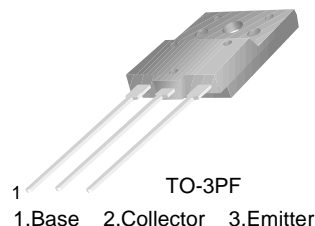


**High Voltage Color Display Horizontal Deflection Output (No Damper Diode)**

- High Collector-Base Voltage :  $V_{CBO}=1500V$
- High Switching Speed  $t_F = 0.3\mu s$  (Max.)
- For Color TV



**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 ( $T_C=25^\circ C$ )	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	$V_{EB} = 4V, I_C = 0$			1	mA
$h_{FE1}$	DC Current Gain	$V_{CE} = 5V, I_C = 1A$	15		40	
$h_{FE2}$		$V_{CE} = 5V, I_C = 8A$	5.3		7.3	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 8A, I_B = 1.6A$			5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 8A, I_B = 1.6A$			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	$\mu s$

# Typical Characteristics

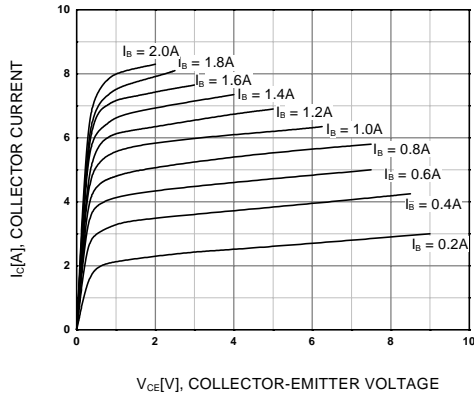


Figure 1. Static Characteristic

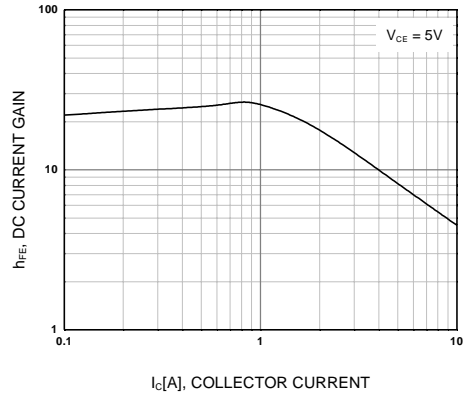


Figure 2. DC current Gain

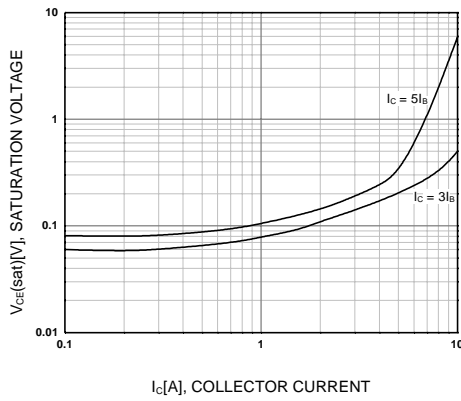


Figure 3. Collector-Emitter Saturation Voltage

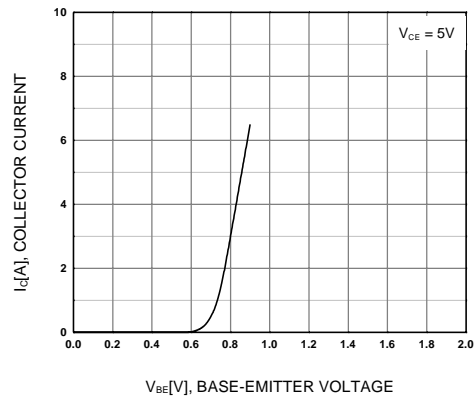


Figure 4. Base-Emitter On Voltage

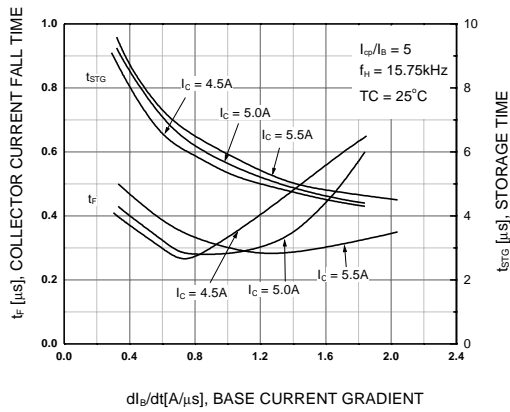


Figure 5. Switching Time

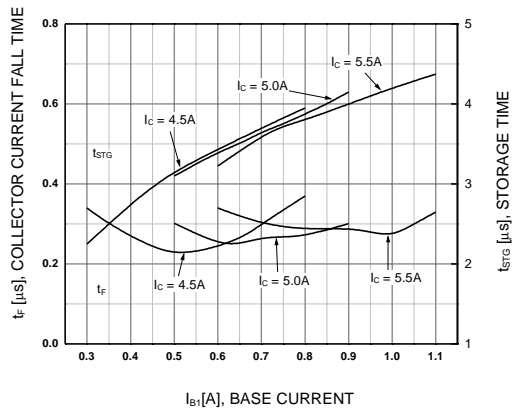


Figure 6. Switching Time

Typical Characteristics (Continued)

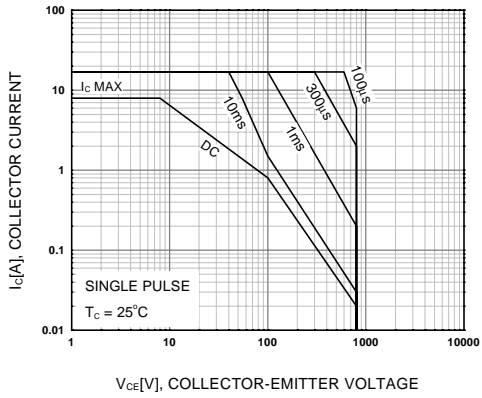


Figure 7. Safe Operating Area

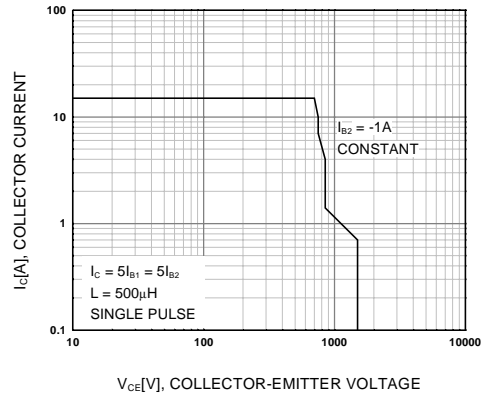


Figure 8. Reverse Bias Operating Area

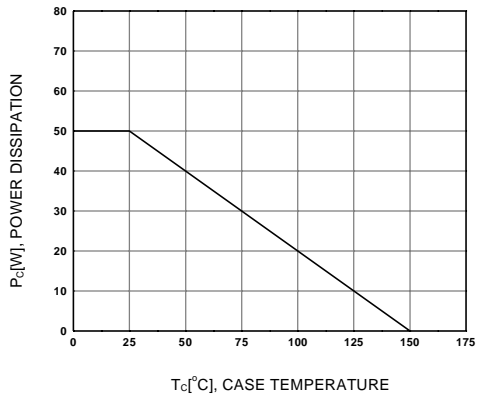
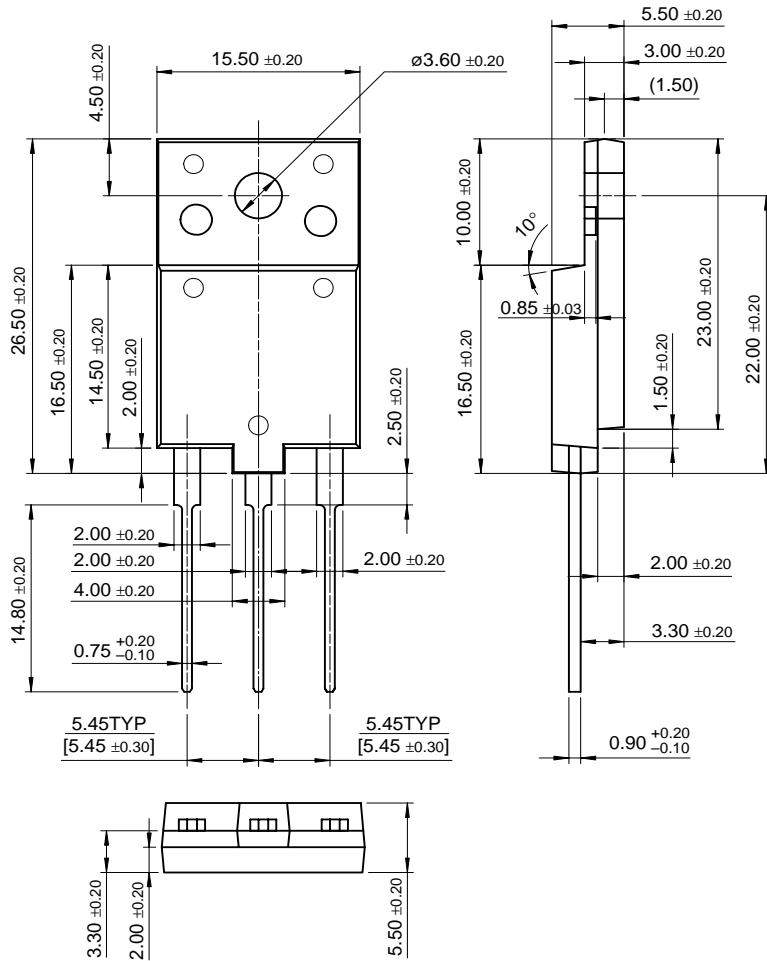


Figure 9. Power Derating

# Package Dimensions

KSD5703

## TO-3PF



Dimensions in Millimeters

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