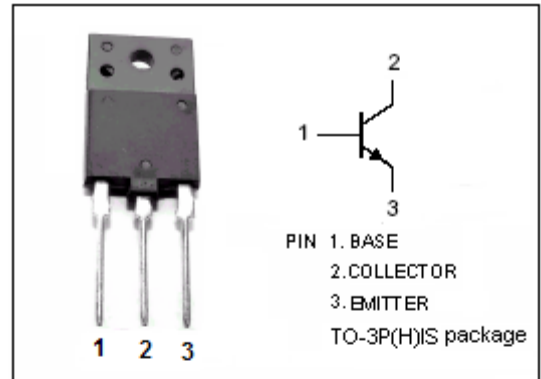


isc Silicon NPN Power Transistor

2SD5703

DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Low Saturation Voltage

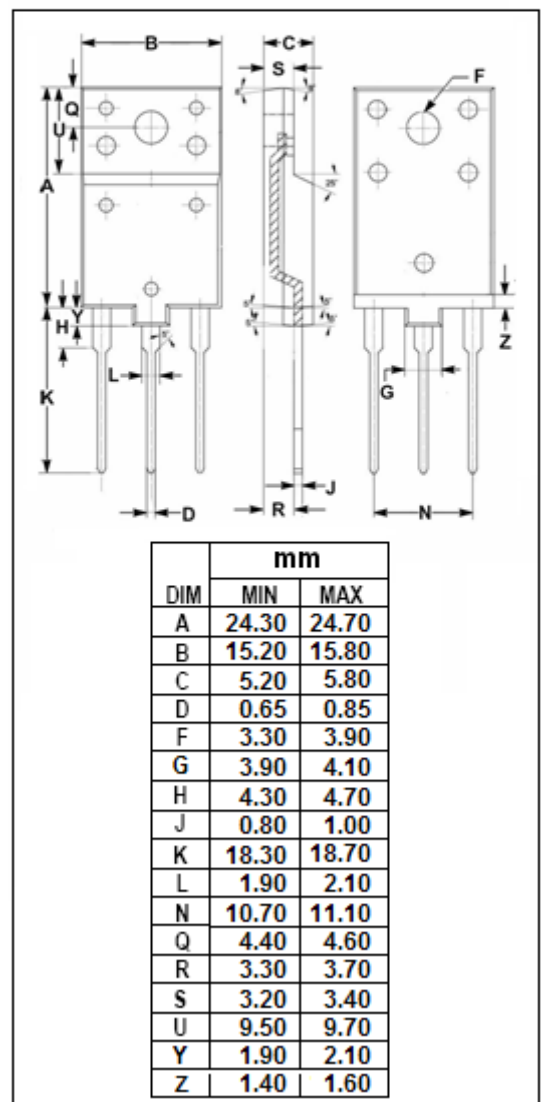


APPLICATIONS

- Designed for color TV horizontal output applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	VALUE	UNIT
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- Continuous	10	A
I_C	Collector Current- Pulse	30	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	70	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**2SD5703****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 1.6A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 8A; I _B = 1.6A			1.5	V
I _{CES}	Collector Cutoff Current	V _{CE} = 1400V; V _{BE} = 0			1	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 800V; I _E = 0			10	μ A
I _{CBO}	Collector Cutoff Current	V _{EB} = 4V; I _C = 0			1	mA
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 5V	15		40	
h _{FE-2}	DC Current Gain	I _C = 8A; V _{CE} = 5V	5.3		7.3	
t _f	Fall Time	I _C = 6A, I _{B1} = 1.2A; I _{B2} = -2.4A; V _{CC} = 200V; R _L = 33.3 Ω			0.3	μ s

Typical Characteristics

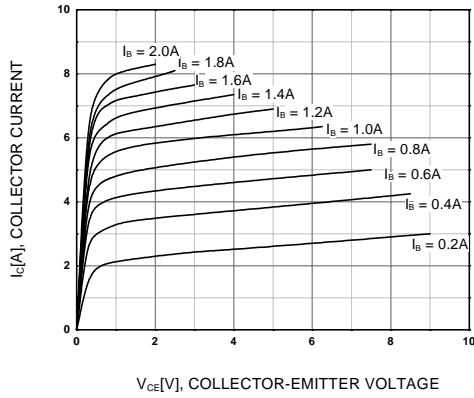


Figure 1. Static Characteristic

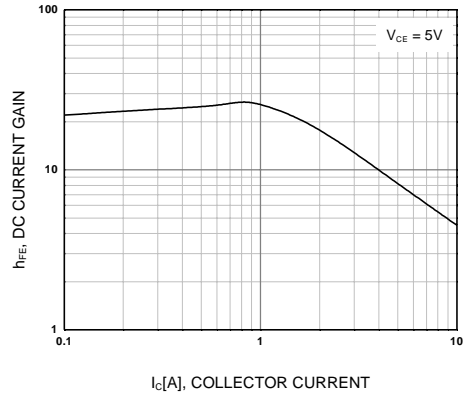


Figure 2. DC current Gain

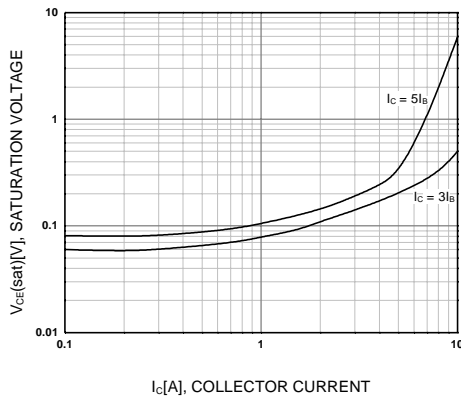


Figure 3. Collector-Emitter Saturation Voltage

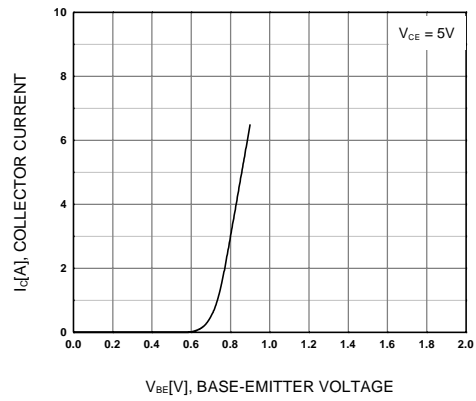


Figure 4. Base-Emitter On Voltage

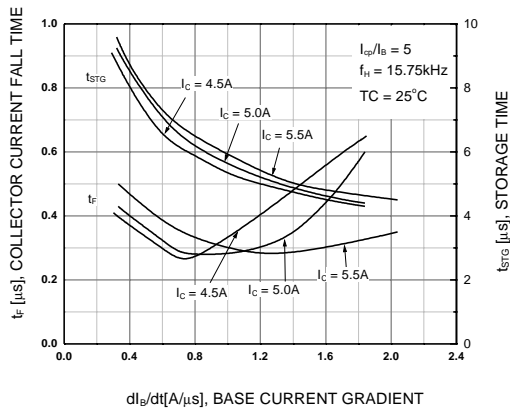


Figure 5. Switching Time

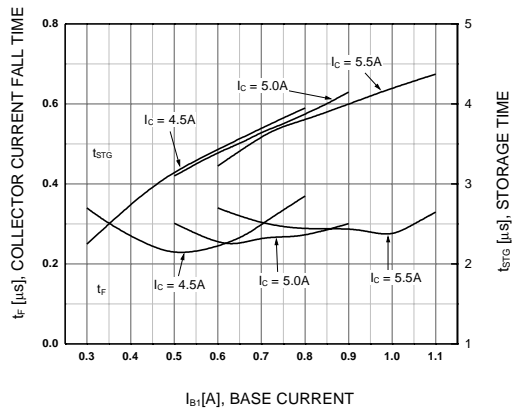


Figure 6. Switching Time

Typical Characteristics (Continued)

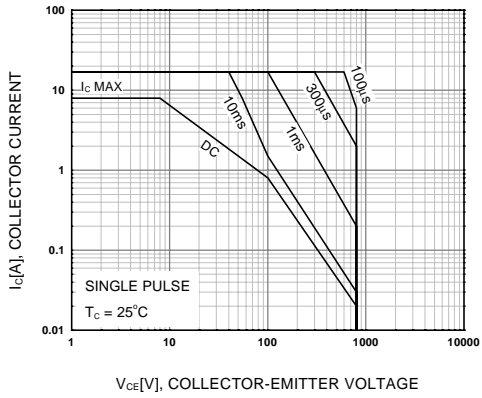


Figure 7. Safe Operating Area

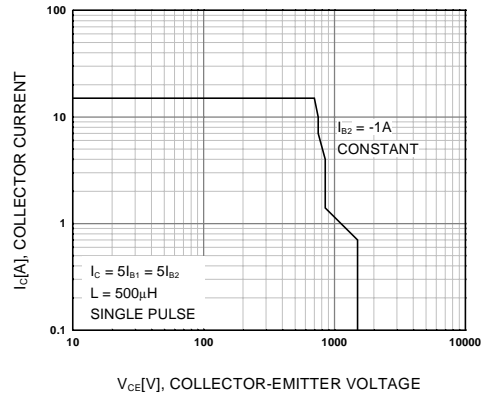


Figure 8. Reverse Bias Operating Area

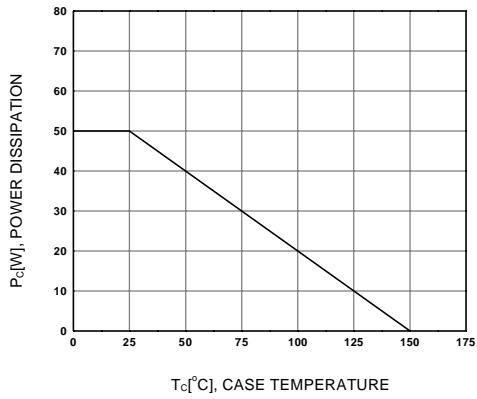
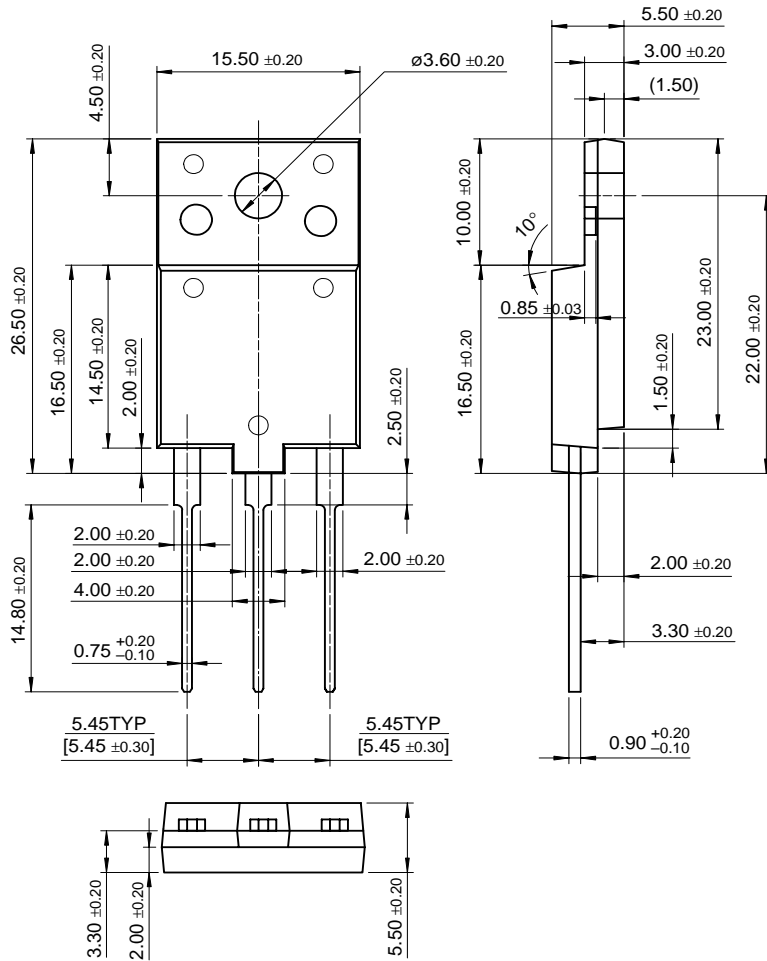


Figure 9. Power Derating

Package Dimensions

KSD5703

TO-3PF



Dimensions in Millimeters