

isc Silicon NPN Power Transistor

2SD5703

DESCRIPTION

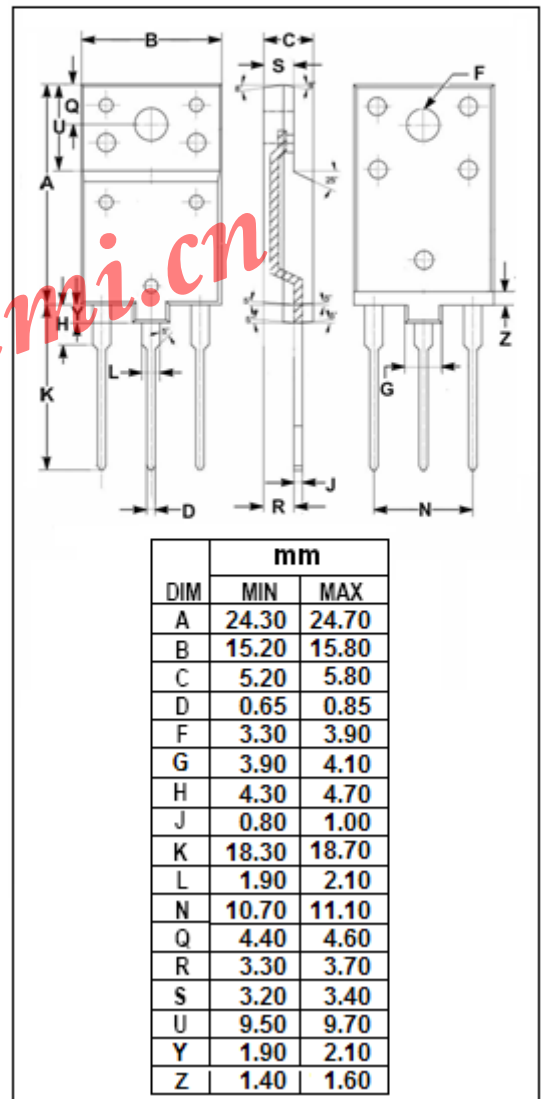
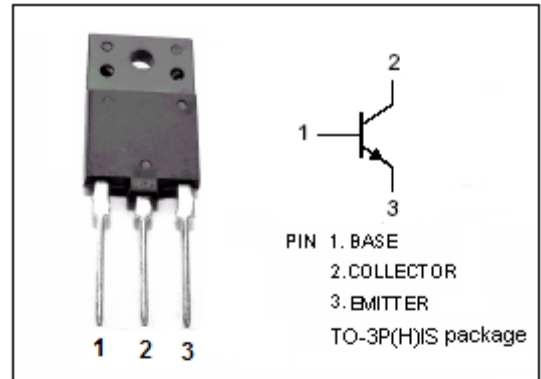
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Low Saturation Voltage

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	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=1.6\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=1.6\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1400\text{V}; V_{BE}=0$			1	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=800\text{V}; I_E=0$			10	μA
I_{CBO}	Collector Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			1	mA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	15		40	
h_{FE-2}	DC Current Gain	$I_C=8\text{A}; V_{CE}=5\text{V}$	5.3		7.3	
t_f	Fall Time	$I_C=6\text{A}, I_{B1}=1.2\text{A}; I_{B2}=-2.4\text{A}; V_{CC}=200\text{V}; R_L=33.3\Omega$			0.3	μs