

isc Silicon NPN Power Transistor

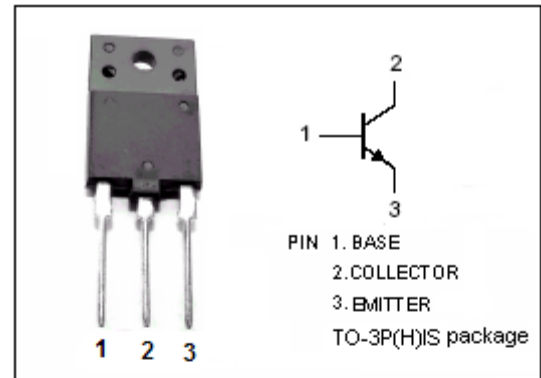
2SC5803

DESCRIPTION

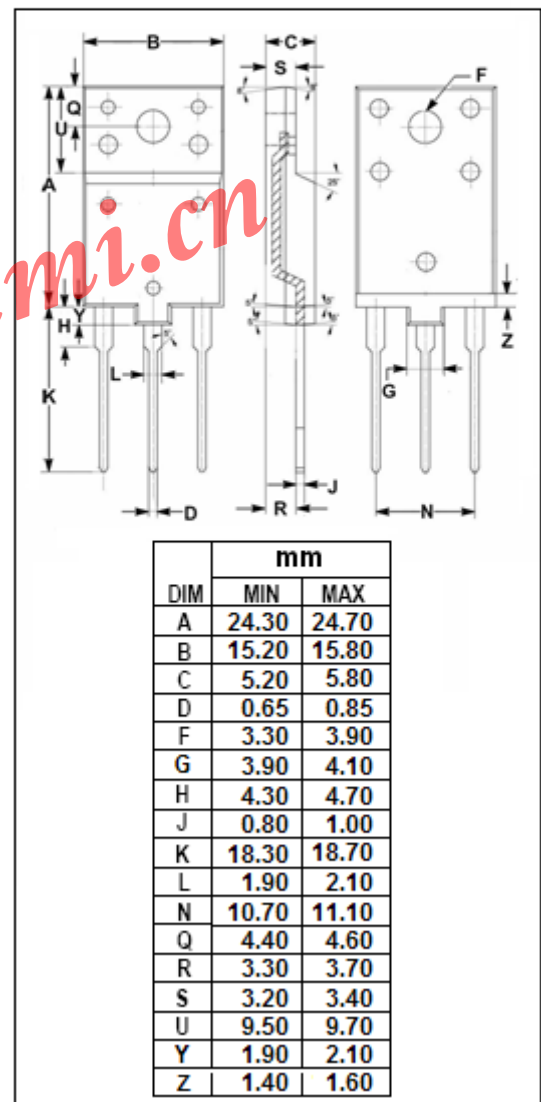
- High Breakdown Voltage-
: $V_{CBO}=1500V$ (Min)
- High Switching Speed
- Wide Area of Safe Operation

APPLICATIONS

- Designed for high voltage color display horizontal deflection 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	12	A
I_{CM}	Collector Current- Peak	24	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	$I_C=8\text{A}; I_B=2\text{A}$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=2\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1400\text{V}; V_{BE}=0$			1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=800\text{V}; I_E=0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			1.0	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	$I_C=8\text{A}; V_{CE}=5\text{V}$	5.5		8.5	

Switching Times

t_{stg}	Storage Time	$I_C=7\text{A}; I_{B1}=1.4\text{A}; I_{B2}=-2.8\text{A};$ $V_{CC}=200\text{V}; R_L=28.6\Omega$			4.0	μs
t_f	Fall Time				0.3	μs