

isc Silicon NPN Power Transistor

2SC5803

DESCRIPTION

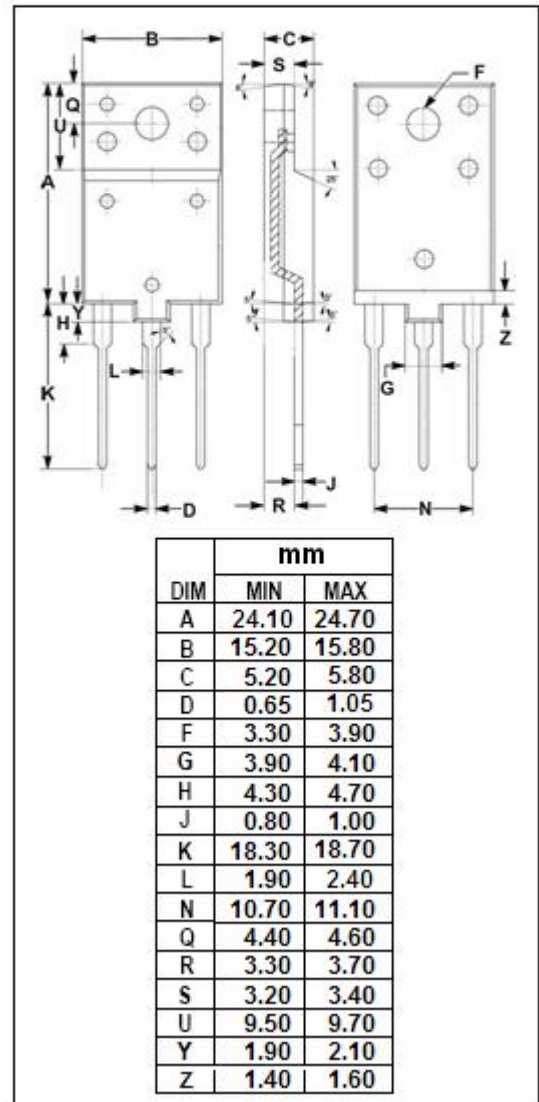
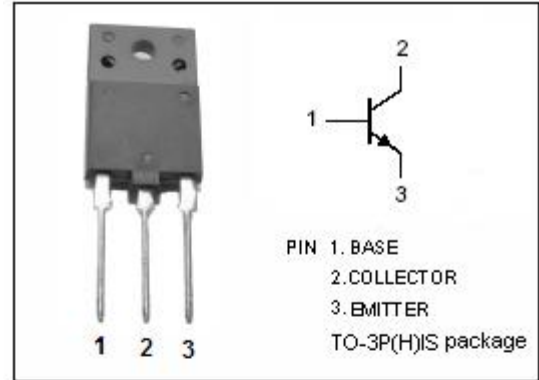
- High Breakdown Voltage-
: $V_{CBO}=1500V$ (Min)
- High Switching Speed
- Wide Area of Safe Operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _c = 8A; I _B = 2A			3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _c = 8A; I _B = 2A			1.5	V
I _{CES}	Collector Cutoff Current	V _{CE} = 1400V; V _{BE} = 0			1.0	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 800V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			1.0	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	5.5		8.5	

Switching Times

t _{stg}	Storage Time	I _c = 7A, I _{B1} = 1.4A; I _{B2} = -2.8A; V _{CC} = 200V; RL= 28.6 Ω			4.0	μ s
t _f	Fall Time				0.3	μ s

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