

isc Silicon NPN Power Transistor
S2000
DESCRIPTION

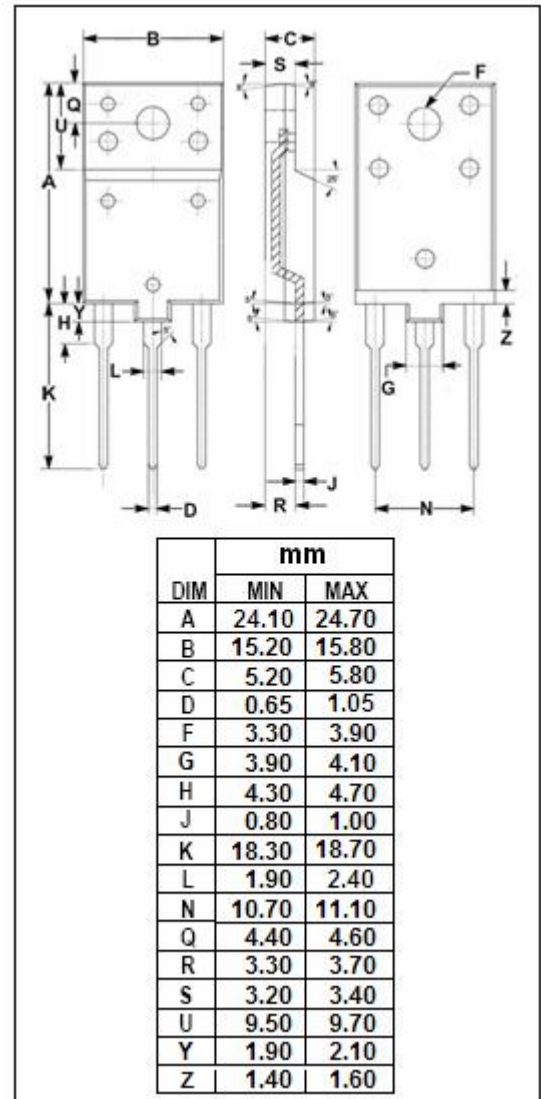
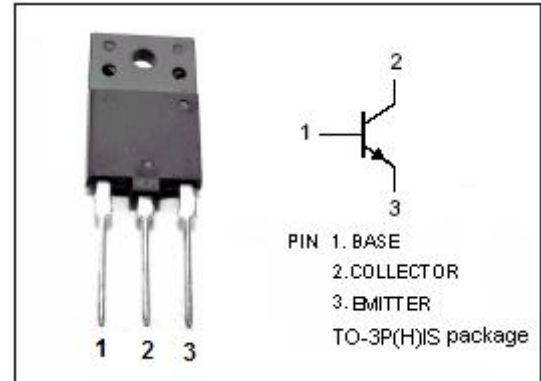
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Color TV horizontal output applications
- Color TV switching regulator 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	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	8	A
I_{CM}	Collector Current-peak	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	125	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 _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	700			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA ; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4.5A ; I _B = 1.0A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4.5A ; I _B = 1.0A			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 1500V ; V _{BE} = 0			1	mA
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	10		30	
h _{FE-2}	DC Current Gain	I _C = 4.5A ; V _{CE} = 5V	4.5		9	
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V ; f= 1MHz		200		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A ; V _{CE} = 10V	2			MHz

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