

isc Silicon NPN Power Transistor

2SC3893

DESCRIPTION

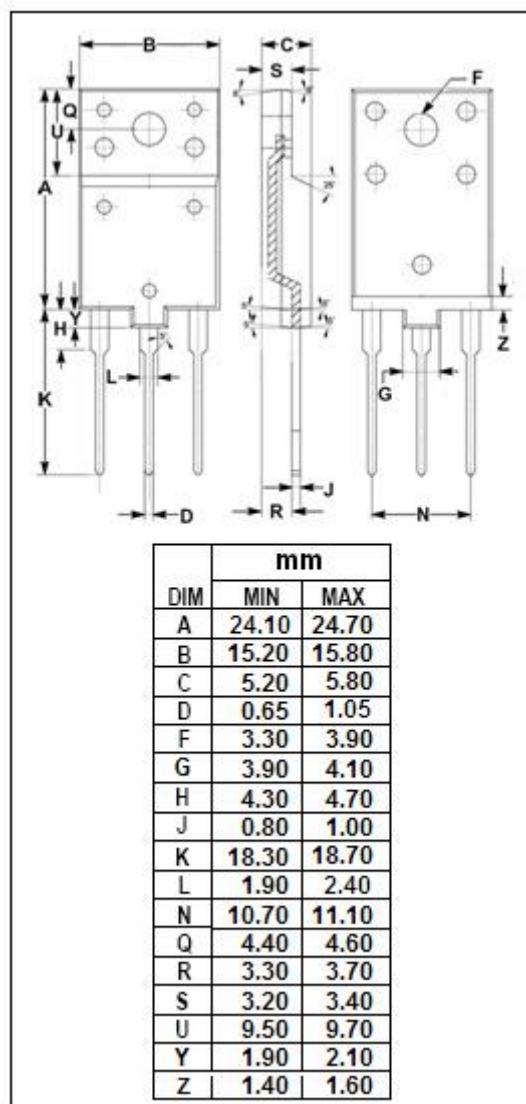
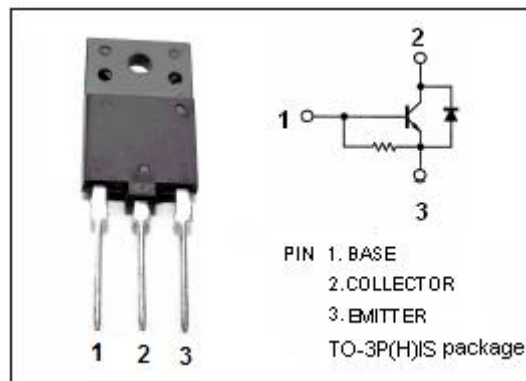
- High Breakdown Voltage-
: $V_{CBO} = 1400V$ (Min)
- High Switching Speed
- Low Saturation Voltage
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal deflection output applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1400	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	8	A
I_{CM}	Collector Current- Peak	15	A
I_B	Base Current- Continuous	4	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	50	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 _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 200mA; I _C = 0	5			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 50 μ A; I _E = 0	1400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 1.5A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 1.5A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 500V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0	66		200	mA
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 5V	8			
V _{ECF}	C-E Diode Forward Voltage	I _F = 6A			2.0	V
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 10V		3		MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} =1.0MHz		210		pF

Switching Times , Resistive load

t _{stg}	Storage Time	I _{CP} = 6A, I _{B1} = 1.2A; I _{B2} = -2.4A; R _L = 33.3 Ω			2.5	μ s
t _f	Fall Time				0.2	μ s

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