

isc Silicon NPN Power Transistor

2SC3506

DESCRIPTION

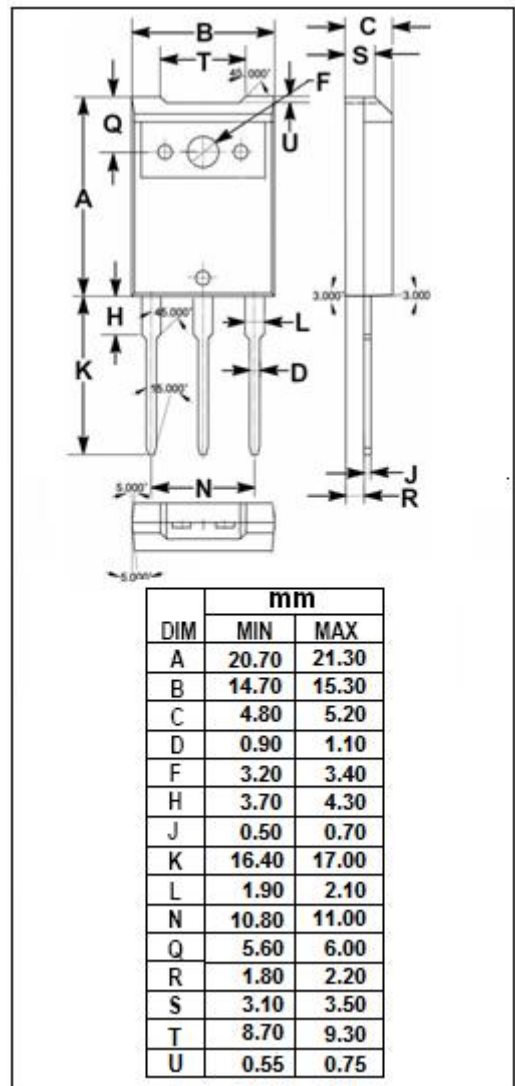
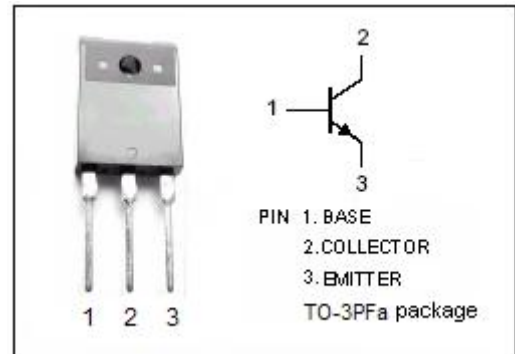
- High Collector-Base Breakdown Voltage-
: $V_{(BR)CBO} = 1000V(\text{Min})$
- High Switching Speed

APPLICATIONS

- Designed for switching regulator and high voltage switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1000	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base voltage	7	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	6	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	70	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	3	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SC3506****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 1mA ; I _B = 0	800			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 1000V ; I _E = 0			50	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			50	μ A
h _{FE}	DC Current Gain	I _C = 2A ; V _{CE} = 5V	6			
f _T	Current-Gain—Bandwidth Product	I _C = 0.2A ; V _{CE} = 5V; f= 1MHz		4		MHz

Switching times

t _{on}	Turn-On Time	I _C = 2A; I _{B1} = 0.4A, I _{B2} = -0.8A; V _{CC} = 250V			1.0	μ s
t _{stg}	Storage Time				2.5	μ s
t _f	Fall Time				0.5	μ s

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