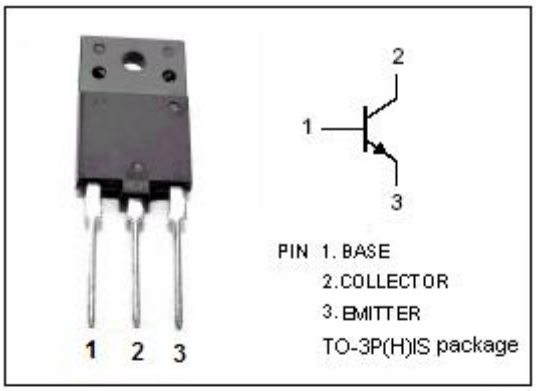
isc Silicon NPN Power Transistor — 2SC4806

DESCRIPTION

- High Breakdown Voltage-
  : V_{CBO}= 1700V(Min)
- High Switching Speed
- Low Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

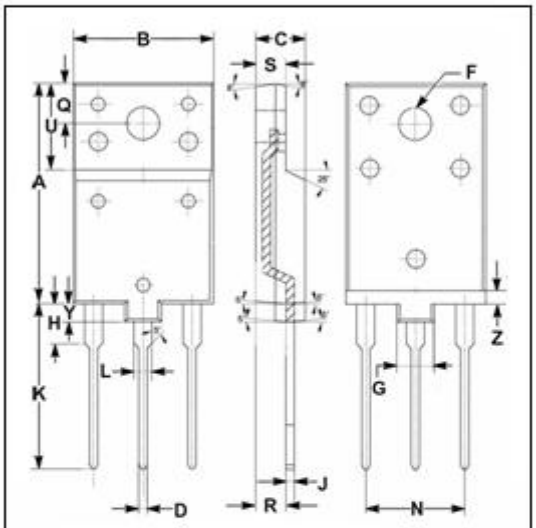


APPLICATIONS

- Horizontal deflection output for high resolution display.
- High speed switching power supply output applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1700	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	2.5	A
P_C	Collector Power Dissipation @ T_C=25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	24.30	24.70
B	15.20	15.80
C	5.20	5.80
D	0.65	0.85
F	3.30	3.90
G	3.90	4.10
H	4.30	4.70
J	0.80	1.00
K	18.30	18.70
L	1.90	2.10
N	10.70	11.10
Q	4.40	4.60
R	3.30	3.70
S	3.20	3.40
U	9.50	9.70
Y	1.90	2.10
Z	1.40	1.60

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 5mA; I_B= 0	600			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3.5A; I_B= 1A			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 3.5A; I_B= 1A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 1700V; I_E= 0			1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	μA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 5V	8			
h_{FE-2}	DC Current Gain	I_C= 3.5A; V_{CE}= 5V	3.5		7.5	
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		240		pF
Switching Times; Resistive Load						
t_{stg}	Storage Time	I_C= 3.5A; I_{B1}= 0.7A; I_{B2}= -1.4A; R_L= 56Ω			3.0	μs
t_f	Fall Time				0.2	μs

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