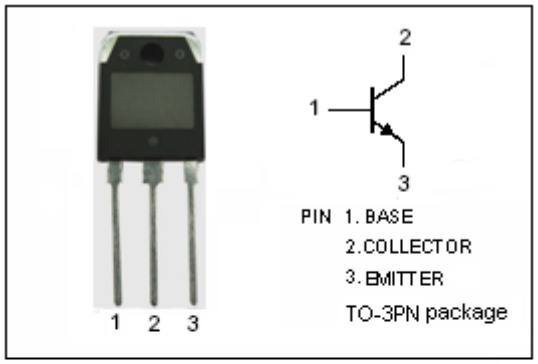
isc Silicon NPN Power Transistor 2SC4434

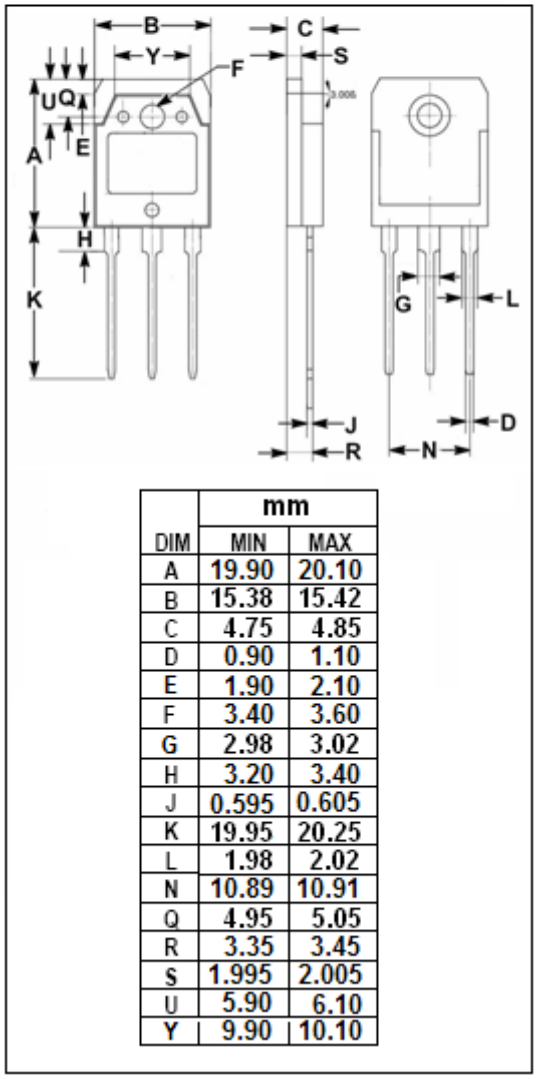


DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 400V(Min)
- High Switching Speed

APPLICATIONS

- Designed for switching regulator, lighting inverter, and general purpose applications.



DIM	mm MIN	MAX
A	19.90	20.10
B	15.38	15.42
C	4.75	4.85
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.98	3.02
H	3.20	3.40
J	0.595	0.605
K	19.95	20.25
L	1.98	2.02
N	10.89	10.91
Q	4.95	5.05
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	30	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @T_C=25℃	120	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 25mA; I_B= 0	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 1.6A			0.7	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 1.6A			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 500V; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 10V; I_C= 0			100	μA
h_{FE}	DC Current Gain	I_C= 8A; V_{CE}= 4V	10		25	
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f= 1MHz		135		pF
f_T	Current-Gain—Bandwidth Product	I_E= -1.5A; V_{CE}= 12V		10		MHz

Switching Times

t_{on}	Turn-On Time	I_C= 8A; I_{B1}= 1.6A; I_{B2}= -3.2A; V_{CC}= 200V; R_L= 25Ω			0.5	μs
t_{stg}	Storage Time				2.0	μs
t_f	Fall Time				0.15	μs