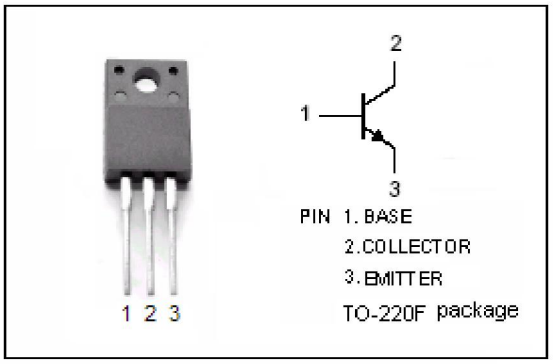
isc Silicon NPN Power Transistor 2SC5172

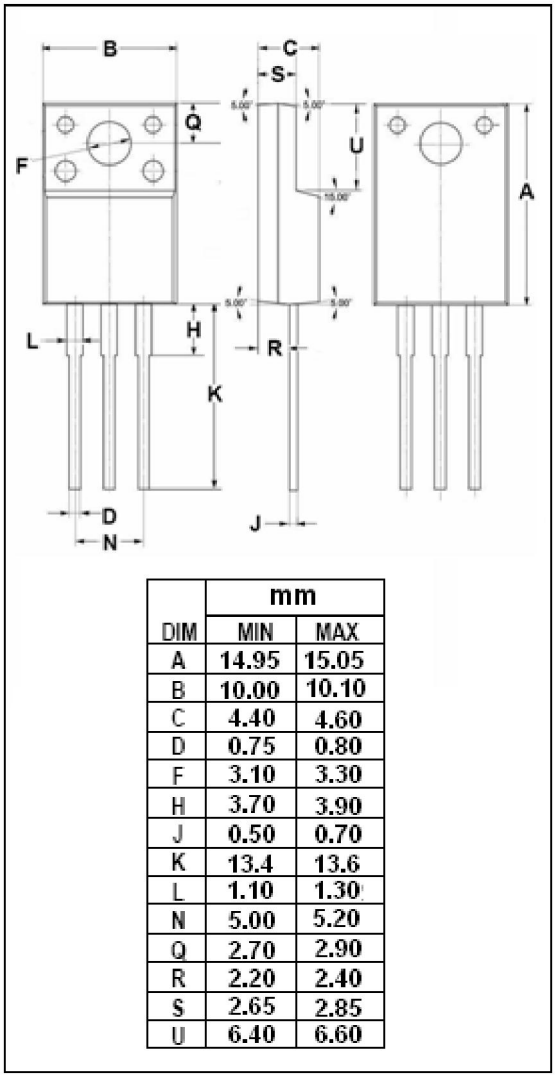
DESCRIPTION

- High Collector Breakdown Voltage
  : V_{CEO} =400V



APPLICATIONS

- Switching regulator and high voltage switching applications
- High speed DC-DC converter applications



DIM	mm MIN	mm MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.80
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.85
U	6.40	6.60

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	600	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_B	Base Current-Continuous	2	A
P_c	Collector Power Dissipation @ T_C=25℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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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= 10mA; I_B= 0	400			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_B= 0	600			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2.0A; I_B= 0.25A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2.0A; I_B= 0.25A			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}=500V ; I_E=0			20	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}=7V ; I_C=0			100	nA
h_{FE-1}	DC Current Gain	I_C=1mA ; V_{CE}= 5V	13			
h_{FE-2}	DC Current Gain	I_C=0.5 A ; V_{CE}= 5V	20		65	