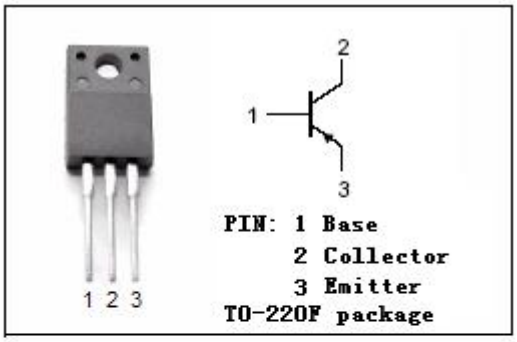
isc Silicon PNP Power Transistor — 2SB1606

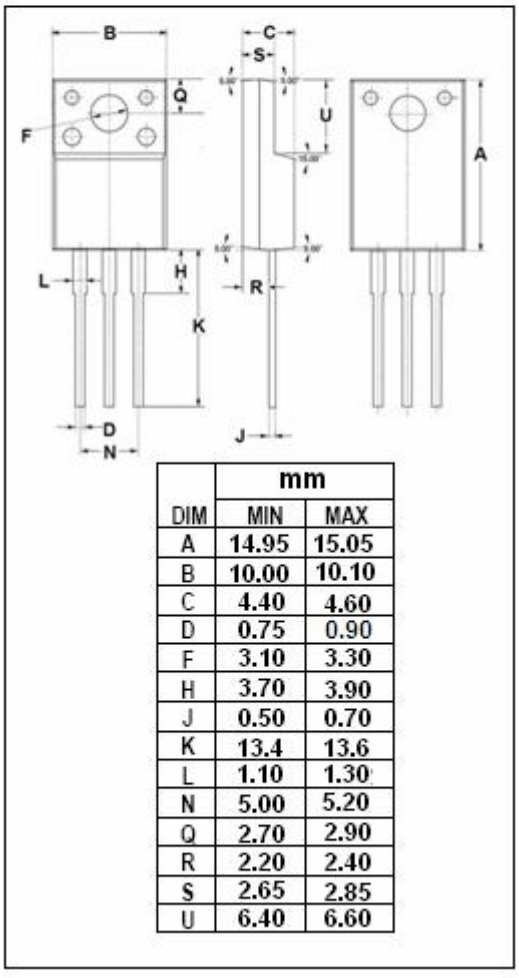
DESCRIPTION

- High Collector current Ic
- Low Collector to Emitter Saturation Voltage
  : $V_{CE(sat)}$= -0.5V(Max.)@I_C= -4A
- Full-pack Package With Outstanding Insulation, Which Can Be Installed to The Heat Sink With One Screw
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for power switching and general purpose applications



DIM	mm MIN	mm MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
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	-130	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-5	A
I_{CM}	Collector Current-Peak	-10	A
P_C	Collector Power Dissipation @ Ta=25℃	2	W
	Collector Power Dissipation @ T_C=25℃	40	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	-80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -4A; I_B= -0.2A			-0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -4A; I_B= -0.2A			-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -100V; I_E= 0			-10	uA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-50	uA
h_{FE-1}	DC Current Gain	I_C= -0.1A; V_{CE}= -2V	45			
h_{FE-2}	DC Current Gain	I_C= -2A; V_{CE}= -2V	90		260	
f_T	Current-Gain—Bandwidth Product	I_E= 0.5A; V_{CE}= -10V;f=10MHz		30		MHz
Switching Times						
t_{on}	Turn-on Time	I_C= -2A; I_{B1}= -I_{B2}= -0.2A,		0.13		μs
t_{stg}	Storage Time			0.5		μs
t_f	Fall Time			0.13		μs

◆ **h_{FE-2}Classifications**

Q	P
90-180	130-260

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