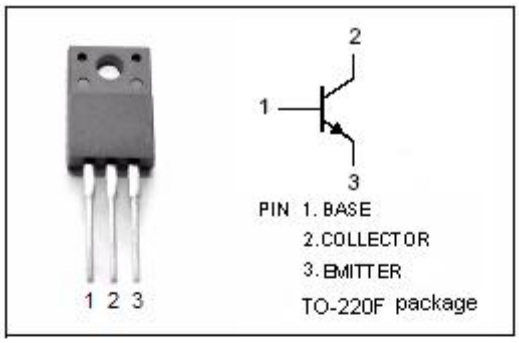
isc Silicon NPN Power Transistor — 2SC4881

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 50V(Min)
- High Switching Speed
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 0.4V(Max)@ (I_C= 2.5A, I_B= 125mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

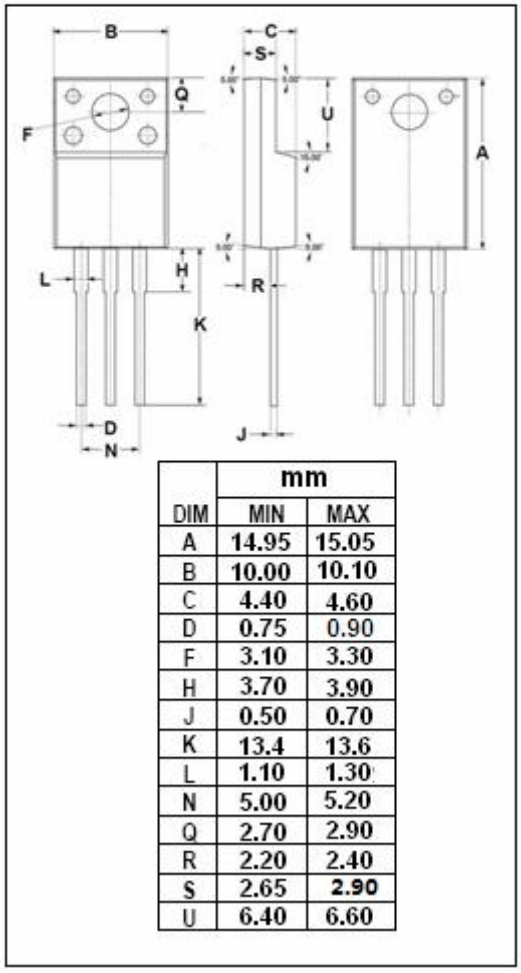


APPLICATIONS

- Designed for high current switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Pulse	8	A
I_B	Base Current-Continuous	1	A
P_T	Total Power Dissipation @T_C=25℃	20	W
	Total Power Dissipation @T_a=25℃	2.0	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



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	2.90
U	6.40	6.60

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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= 10mA; I_B= 0	50			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2.5A; I_B= 125mA			0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2.5A; I_B= 125mA			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 50V ; I_E= 0			1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			1	μA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 1V	100		320	
h_{FE-2}	DC Current Gain	I_C= 2.5A ; V_{CE}= 1V	60			
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V; f= 1.0MHz		45		pF
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 4V		100		MHz
Switching times						
t_{on}	Turn-on Time	R_L= 12Ω ,I_{B1}= -I_{B2}= 125mA, V_{CC}= 30V		0.1		μs
t_{stg}	Storage Time			0.8		μs
t_f	Fall Time			0.1		μs