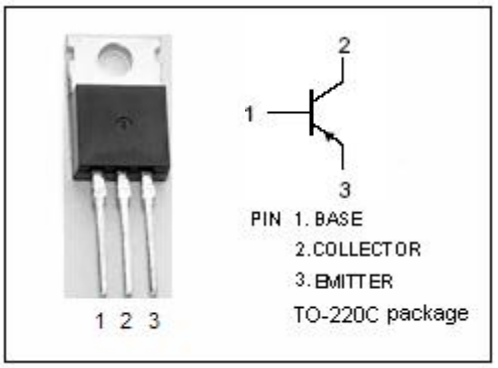
isc Silicon PNP Power Transistor 2SB553

DESCRIPTION

- Low Collector Saturation Voltage
  :$V_{CE(sat)}$= -0.4(V)(Max)@I_C= -4A
- Complement to Type 2SD553
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

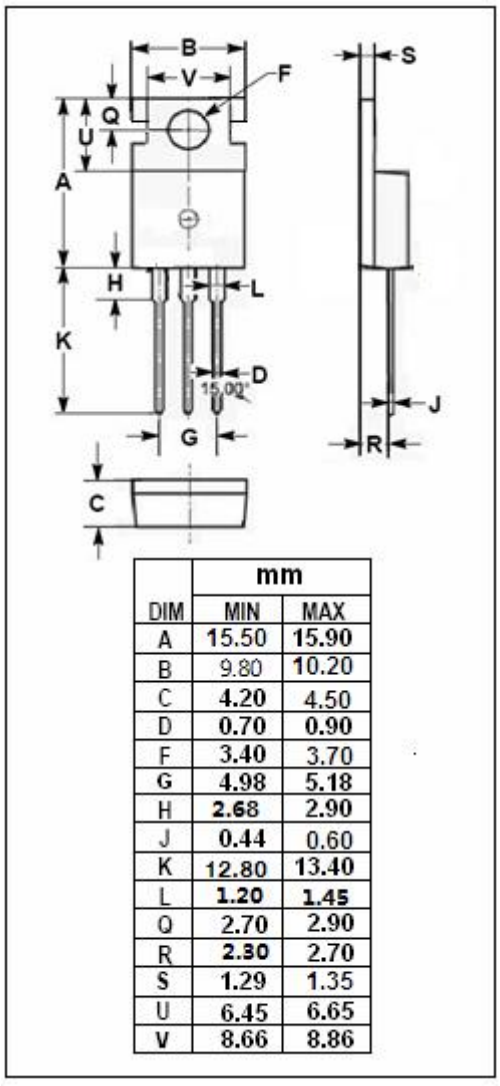


APPLICATIONS

- High current switching applications.
- Power amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-7	A
P_C	Total Power Dissipation @ T_a=25℃	1.5	W
	Total Power Dissipation @ T_C=25℃	40	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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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= -50mA; I_B= 0	-50			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -4A; I_B= -0.4A			-0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -4A; I_B= -0.4A			-1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -70V ; I_E= 0			-30	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-50	μA
h_{FE-1}	DC Current Gain	I_C= -1A ; V_{CE}= -1V	70		240	
h_{FE-2}	DC Current Gain	I_C= -4A ; V_{CE}= -1V	30			
f_T	Current-Gain—Bandwidth Product	I_C= -1A ; V_{CE}= -4V		10		MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= -10V; f_{test}= 1MHz		250		pF

◆ **h_{FE-1} Classifications**

O	Y
70-140	120-240

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