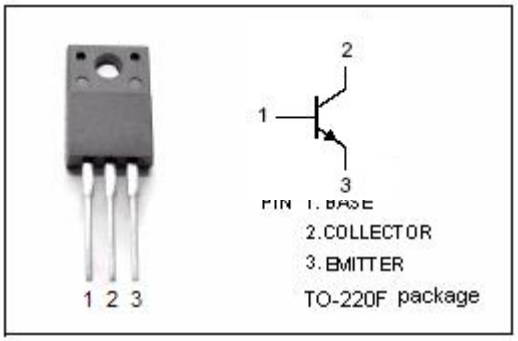
isc Silicon NPN Power Transistor — 2SD2374A

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 80V(Min)
- Collector Power Dissipation-
  : P_C= 25 W@ T_C= 25℃
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 1.2V(Max)@ (I_C= 3A, I_B= 0.375A)
- Complement to Type 2SB1548A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

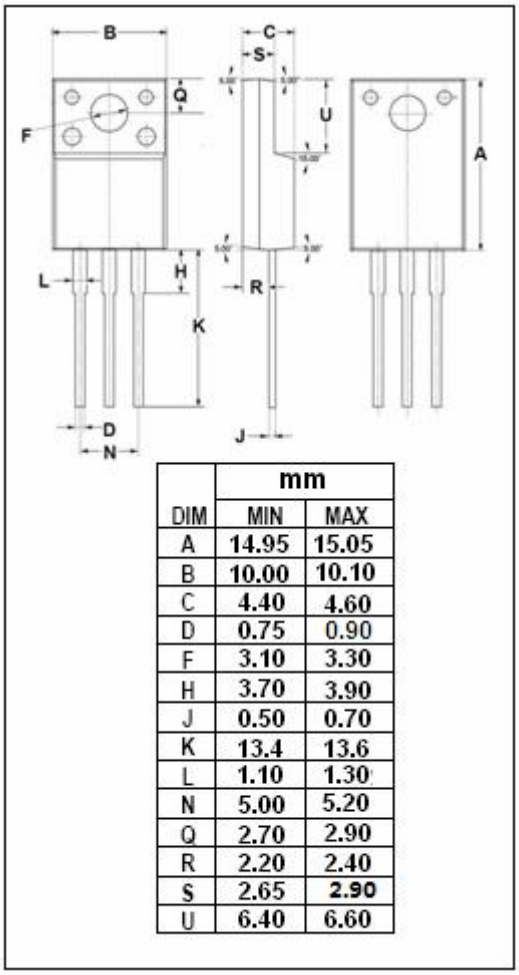


APPLICATIONS

- Designed for power amplifications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	5	A
P_C	Collector Power Dissipation @T_a=25℃	2	W
	Collector Power Dissipation @T_C=25℃	25	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	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= 30mA; I_B= 0	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.375A			1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 3A; V_{CE}= 4V			1.8	V
I_{CES}	Collector Cutoff Current	V_{CE}= 80V; V_{BE}= 0			200	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 60V; I_B= 0			300	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			1	mA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 4V	70		250	
h_{FE-2}	DC Current Gain	I_C= 3A; V_{CE}= 4V	10			
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A;V_{CE}= 10V; f_{test}= 10MHz		30		MHz

◆ **h_{FE-1} Classifications**

Q	P
70-150	120-250