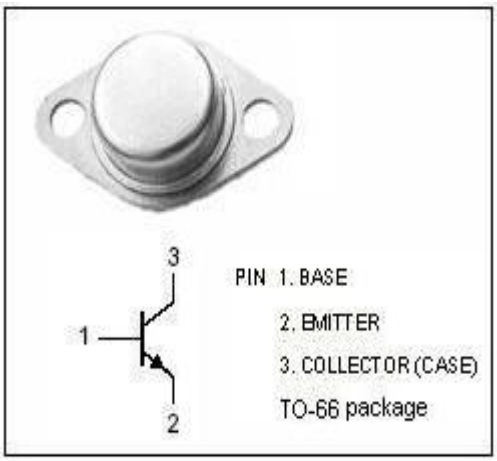
isc Silicon NPN Power Transistor — 2SD315



DESCRIPTION

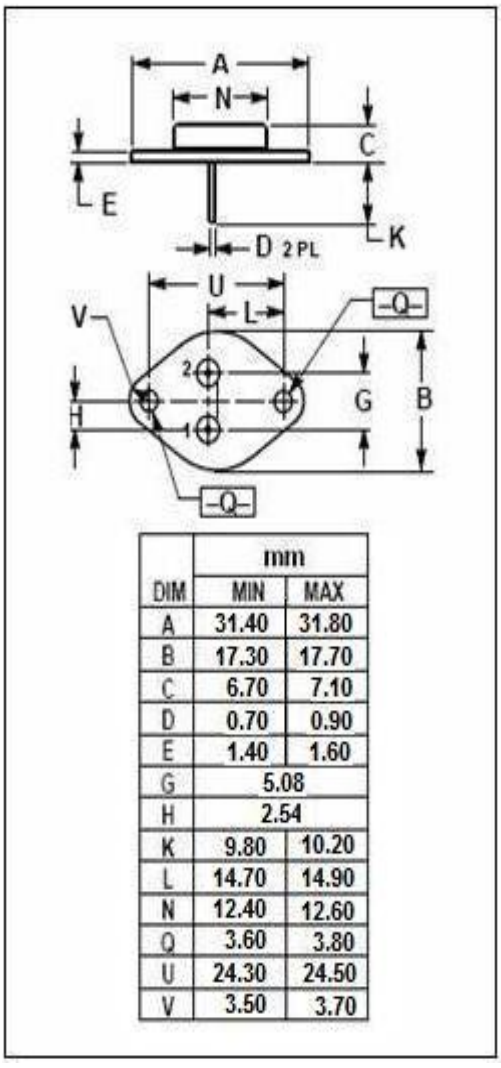
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 60V(Min)
- Low Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max) @I_C= 2.0A
- Complement to Type 2SB509
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for AF power amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ T_C=25℃	35	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-40~150	℃



DIM	mm MIN	MAX
A	31.40	31.80
B	17.30	17.70
C	6.70	7.10
D	0.70	0.90
E	1.40	1.60
G	5.08	
H	2.54	
K	9.80	10.20
L	14.70	14.90
N	12.40	12.60
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.2A		0.4	1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 1A ; V_{CE}= 2V			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 20V ; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V ; I_C= 0			1	mA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 2V	40		320	
h_{FE-2}	DC Current Gain	I_C= 0.1A; V_{CE}= 2V	40			
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 5V		8		MHz

◆ **h_{FE-1} Classifications**

C	D	E	F
40-80	60-120	100-200	160-320