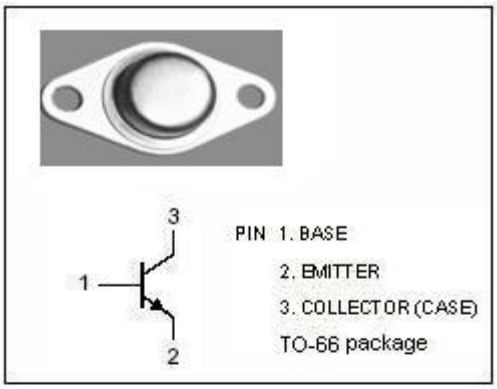
isc Silicon NPN Power Transistor — 2SD297

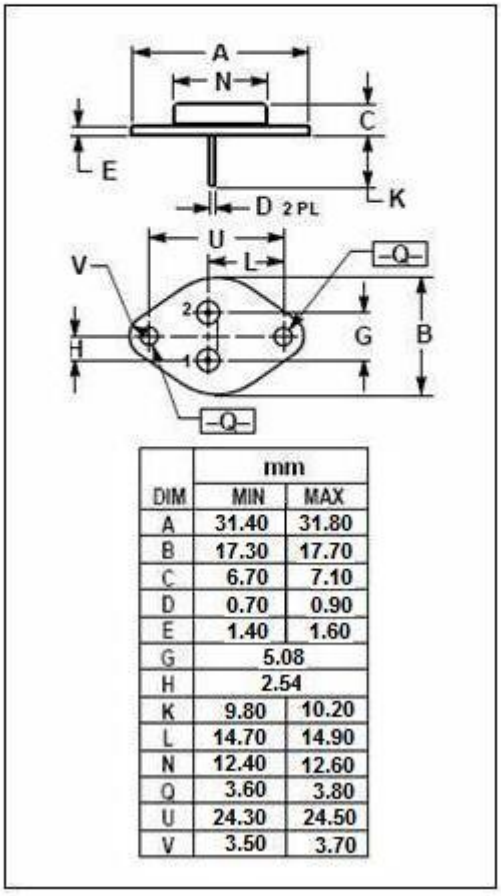
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)\ CEO}$= 80V(Min)
- Collector Power Dissipation-
  : P_C= 25W @T_C= 25℃
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for use in general purpose amplifier and switching applications.



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	5	A
I_B	Base Current	1	A
P_C	Collector Power Dissipation@T_C=25℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 30mA ; I_B= 0	80		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.4A		2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 2A; V_{CE}= 4V		1.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 150V; V_{EB}= 0		0.1	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 80V; I_B= 0		0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0		10	uA
h_{FE-1}	DC Current Gain	I_C= 0.1A ; V_{CE}= 2V	60		
h_{FE-1}	DC Current Gain	I_C= 2A ; V_{CE}= 2V	20		
f_T	Current-Gain—Bandwidth Product	I_C= 0.1A ; V_{CE}= 10V	20		MHz