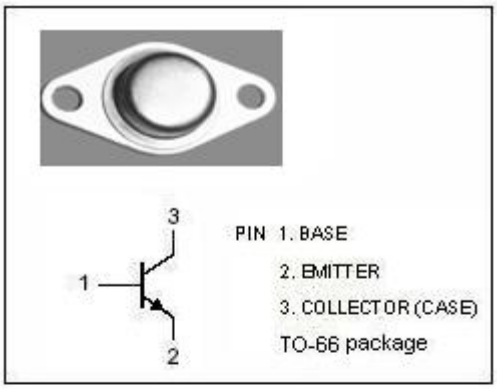
isc Silicon NPN Power Transistor 2N3766

DESCRIPTION

- Continuous Collector Current I_C= 4A
- Collector Power Dissipation-
  : P_C= 20W @T_C= 25℃



APPLICATIONS

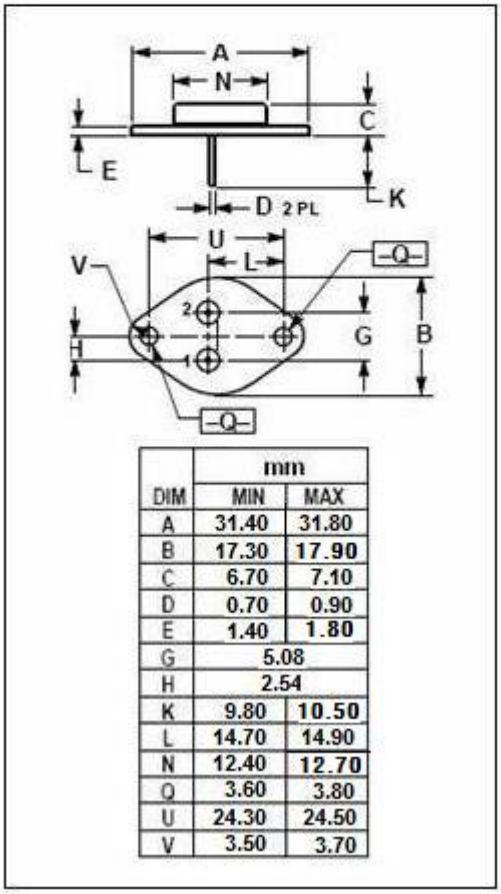
- Designed for power amplifier and medium speed switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	4	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation@T_C=25℃	20	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	8.75	℃/W



DIM	mm MIN	MAX
A	31.40	31.80
B	17.30	17.90
C	6.70	7.10
D	0.70	0.90
E	1.40	1.80
G	5.08	
H	2.54	
K	9.80	10.50
L	14.70	14.90
N	12.40	12.70
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	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 30mA; I_B= 0	60		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 0.5A; I_B= 50mA		1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 1A; I_B= 0.1A		2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 1A; V_{CE}= 10V		1.5	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 60V; I_B= 0		0.7	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 80V; I_E= 0 V_{CB}= 80V; I_E= 0,T_C=150℃		0.1 1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0		0.75	mA
h_{FE-1}	DC Current Gain	I_C= 50mA ; V_{CE}= 5V	30		
h_{FE-2}	DC Current Gain	I_C= 0.5A; V_{CE}= 5V	40	160	
h_{FE-3}	DC Current Gain	I_C= 1A; V_{CE}= 10V	20		
f_T	Current Gain-Bandwidth Product	I_C= 0.5A; V_{CE}= 10V; f=10MHz	10		MHz