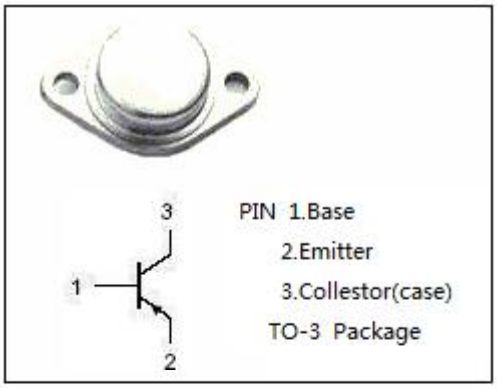
isc Silicon PNP Power Transistor 2N5684

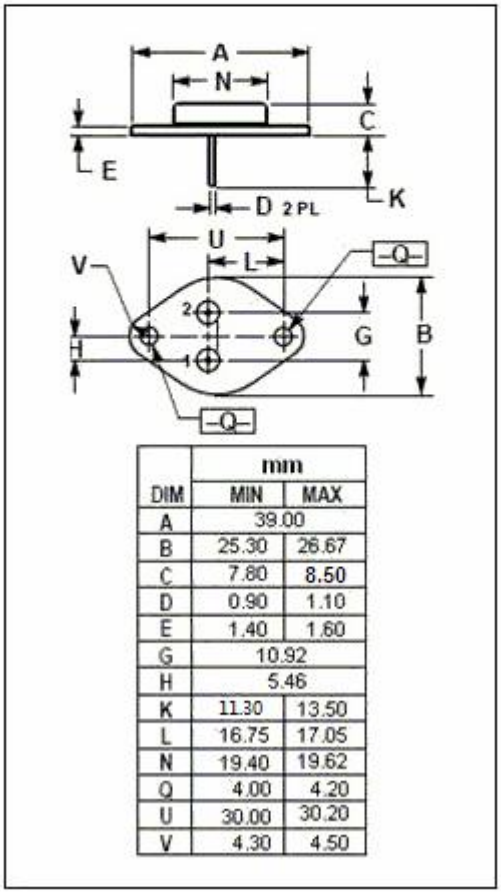


DESCRIPTION

- High DC Current Gain-h_{FE}=15~60@I_C = -25A
- Low Saturation Voltage-
  $V_{CE(sat)}$= -1.0V(Max)@ I_C = -25A

APPLICATIONS

- Designed for use in high power amplifer and switching circuits applications.



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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	-5	V
I_C	Collector Current-Continuous	-50	A
I_B	Base Current-Continuous	-15	A
P_C	Collector Power Dissipation @T_C=25℃	-300	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.584	℃/W

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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=-50mA ; I_B=0	-80		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C=-25A; I_B=-2.5A		-1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -50A; I_B=-10A		-5.0	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= -25A; I_B=-2.5A		-2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -25A ; V_{CE}=-2V		-2.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}=-40V; I_B=0		-1	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= -80V; $V_{BE(off)}$= -1.5V V_{CE}= -80V; $V_{BE(off)}$= -1.5V,T_C=150℃		-2 -10	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= -80V; I_C=0		-2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C=0		-5	mA
h_{FE-1}	DC Current Gain	I_C= -25A ; V_{CE}= -2V	15	60	
h_{FE-2}	DC Current Gain	I_C= -50A ; V_{CE}= -5V	5		
f_T	Current Gain-Bandwidth Product	I_C= -5A ; V_{CE}= -10V;f=1.0MHz	2		MHz