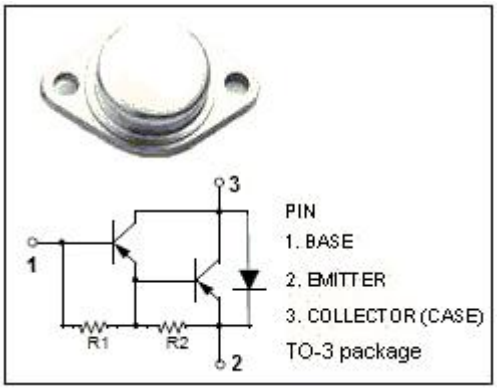
isc Silicon PNP Darlington Power Transistor 2SB638

DESCRIPTION

- Built-in Base-Emitter Shunt Resistors
- High DC current gain-
  h_{FE} =1000 (Min) @ I_C = -5A
- Collector-Emitter Sustaining Voltage-
  $V_{CEO(SUS)}$= -100V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

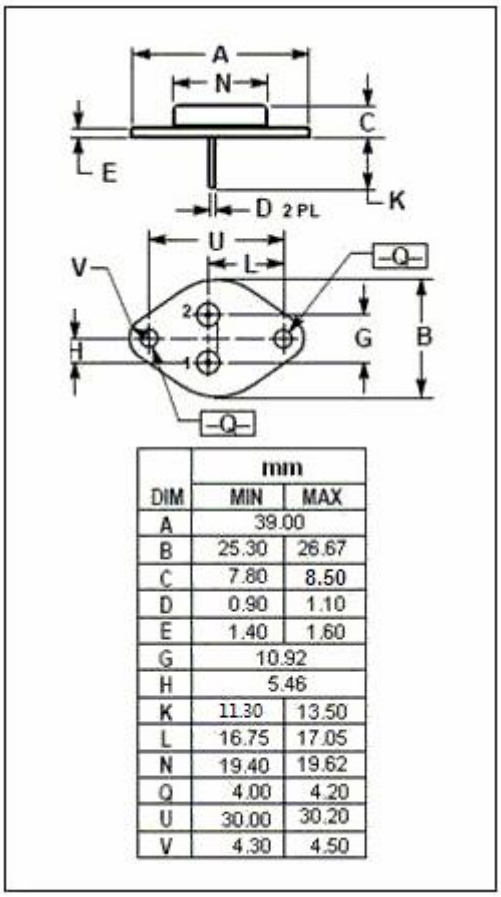
- Designed for general purpose amplifier and low frequency switching applications.

ABSOLUTE MAXIMUM RATINGS(T_C=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-10	A
I_{CM}	Collector Current-Peak	-15	A
I_B	Base Current	-0.2	A
P_C	Collector Power Dissipation@T_C=25℃	80	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	ThermalResistance, Junction to Case	1.17	℃/W



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

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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= -10mA ; I_B= 0	-100		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= -5A; I_B= -20mA		-2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -10A; I_B= -100mA		-3.0	V
$V_{BE(on)}$	Base-Emitter On voltage	I_C= -5A ; V_{CE}= -3V		-2.8	V
I_{CEO}	Collector Cutoff current	V_{CE}= -100V; I_B=0		-1.0	mA
I_{CEX}	Collector Cutoff current	V_{CE}= -100V;$V_{BE(off)}$= -1.5V V_{CE}= -100V;$V_{BE(off)}$= -1.5V,T_C=150℃		-0.1 -2.0	mA
I_{EBO}	Emitter Cut-off current	V_{EB}= -5V; I_C= 0		-2.0	mA
h_{FE-1}	DC Current Gain	I_C= -5A ; V_{CE}= -3V	1000	20000	
h_{FE-2}	DC Current Gain	I_C= -10A ; V_{CE}= -3V	100		
fT	Transition frequency	V_{CE}=-10V ,I_C=-0.5A,,f=1MHz	5		MHz

Pulse test：Pulse width≤300us,duty cycle ≤2%