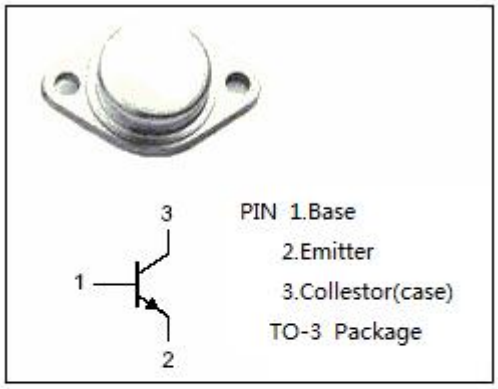
isc Silicon NPN Power Transistor 2N3773

DESCRIPTION

- Excellent Safe Operating Area
- High DC Current Gain-h_{FE}=15(Min)@I_C = 8A
- Low Saturation Voltage-
  : $V_{CE(sat)}$= 1.4V(Max)@ I_C = 8A
- Complement to Type 2N6609
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

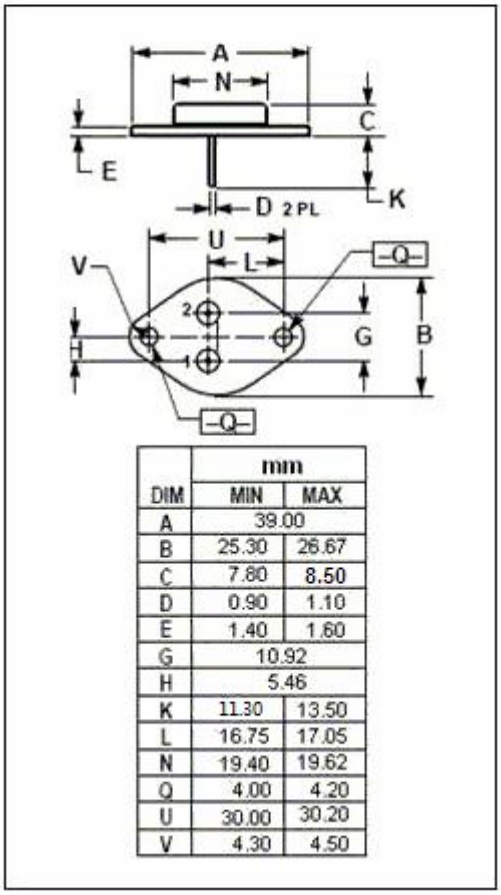


APPLICATIONS

- Designed for high power audio ,disk head positioners and other linear applications, which can also be used in power switching circuits such as relay or solenoid drivers, DC-DC converters or inverters.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	160	V
V_{CEX}	Collector-Emitter Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	16	A
I_{CP}	Collector Current-Peak	30	A
I_B	Base Current-Continuous	4	A
I_{BP}	Base Current-Peak	15	A
P_C	Collector Power Dissipation @T_C=25℃	150	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃



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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.17	℃/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	140		V
$V_{CEX(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=100mA ; $V_{BE(off)}$= 1.5V; R_{BE}=100Ω	160		V
$V_{CER(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=200mA ; R_{BE}=100Ω	150		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 0.8A		1.4	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 16A; I_B= 3.2A		4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 8A ; V_{CE}= 4V		2.2	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 120V; I_B=0		10	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7.0V; I_C=0		5	mA
h_{FE-1}	DC Current Gain	I_C= 8A ; V_{CE}= 4V	15	60	
h_{FE-3}	DC Current Gain	I_C= 16A ; V_{CE}= 4V	5		
$I_{s/b}$	Second Breakdown Collector Current with Base Forward Biased	V_{CE}= 100V,t= 1.0s,Nonrepetitive	1.5		A