

isc Silicon NPN Power Transistor

2N3773

DESCRIPTION

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

APPLICATIONS

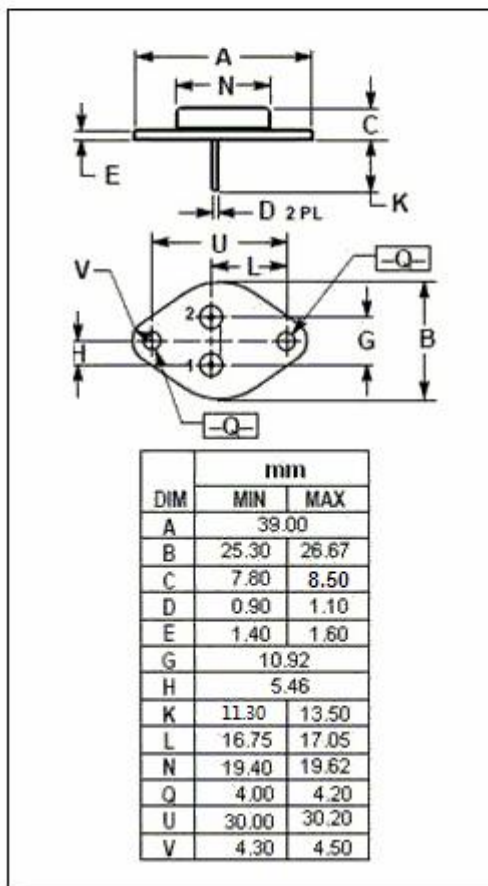
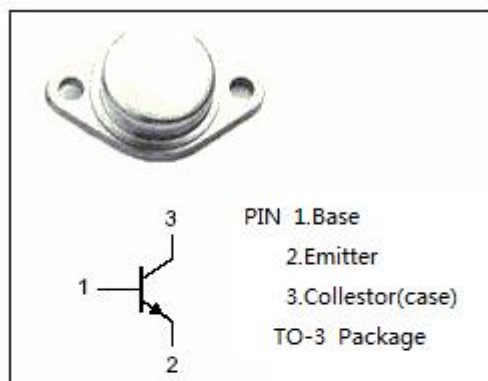
- Designed for high power audio ,disk head positioners and other linear applications, which can also be used in power switching circuits such as relay or solenoid drivers, DC-DC converters or inverters.

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

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 @ $T_C=25^{\circ}C$	150	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-65~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.17	$^{\circ}C/W$



isc Silicon NPN Power Transistor**2N3773****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CE0(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} =100 Ω	160		V
V _{CER(SUS)}	Collector-Emitter Sustaining Voltage	I _C =200mA ; R _{BE} =100 Ω	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

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