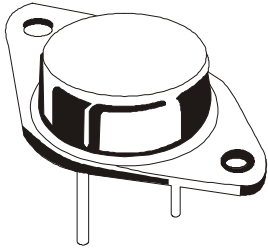


**NPN SILICON PLANAR POWER TRANSISTOR**

**2N3773**



**TO-3  
Metal Can Package**

Complementary 2N6609

General Purpose Amplifier specially suited for Power Conditioning Applications

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	$V_{CBO}$	160	V
Collector Emitter Voltage	$V_{CEO}$	140	V
Collector Emitter Voltage	$V_{CEX}$	160	V
Emitter Base Voltage	$V_{EBO}$	7	V
Collector Current Continuous	$I_C$	16	A
Peak (1)		30	A
Base Current Continuous	$I_B$	4	A
Peak (1)		15	A
Power Dissipation @ $T_c=25^\circ\text{C}$	$P_D$	150	W
Derate Above 25°C		0.855	W/°C
Operating and Storage Junction Temperature Range	$T_j, T_{stg}$	- 65 to +200	°C

**THERMAL RESISTANCE**

Junction to Case	$R_{th(j-c)}$	1.17	°C/W
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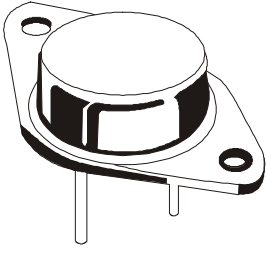
(1) Pulse Test: Pulse Width =5ms, Duty Cycle ≤10%

**ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ\text{C}$  unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}^*$	$I_C=0.2A, I_B=0$	140		V
Collector Emitter Sustaining Voltage	$V_{CEX(sus)}^*$	$I_C=0.1A, R_{BE}=100\Omega, V_{BE(off)}=1.5V$	160		V
Collector Emitter Sustaining Voltage	$V_{CER(sus)}^*$	$I_C=0.2A, R_{BE}=100\Omega$	150		V
Collector Cut Off Current	$I_{CEO}$	$V_{CE}=120V, I_B=0$		10	mA
Collector Cut Off Current	$I_{CEX}$	$V_{CE}=140V, V_{BE(off)}=1.5V$ $T_c=150^\circ\text{C}$ $V_{CE}=140V, V_{BE(off)}=1.5V$		2.0	mA
Collector Cut Off Current	$I_{CBO}$	$V_{CB}=140V, I_E=0$		2.0	mA
Emitter Cut Off Current	$I_{EBO}$	$V_{BE}=7V, I_C=0$		5.0	mA
DC Current Gain	$h_{FE}^*$	$I_C=8A, V_{CE}=4V$ $I_C=16A, V_{CE}=4V$	15 5	60	
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C=8A, I_B=800mA$ $I_C=16A, I_B=3.2A$		1.4 4.0	V
Base Emitter on Voltage	$V_{BE(on)}^*$	$I_C=8A, V_{CE}=4V$		2.2	V

# NPN SILICON PLANAR POWER TRANSISTOR

2N3773



TO-3  
Metal Can Package

## ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$ unless specified otherwise)

### Dynamic Characteristics

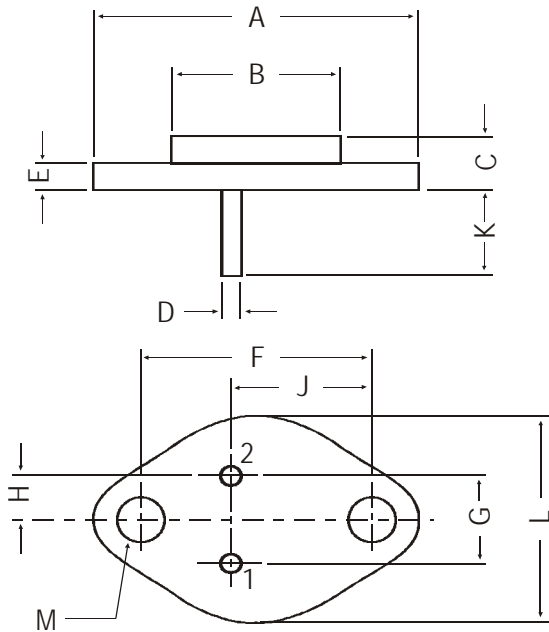
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Magnitude of Common Emitter Small Signal, Short Circuit, Forward Current Transfer Ratio	$ h_{fe} $	$I_C=1\text{A}$ , $f=50\text{KHz}$	4.0		
Small Signal Current Gain	$h_{fe}$	$I_C=1\text{A}$ , $V_{CE}=4\text{V}$ , $f=1\text{KHz}$	40		

### Second Breakdown Characteristics

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Second Breakdown Collector Current With Base Forward Biased	$I_{S/b}$	$V_{CE}=100\text{V}$ , $t=1.0\text{ s}$ , Nonrepetitive	1.5		A

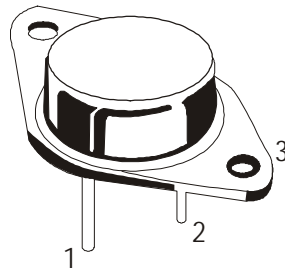
\*Pulse Test: Pulse Width =300ms, Duty Cycle  $\leq$ 2%

TO-3 Metal Can Package



DIM	MIN.	MAX.
A	—	39.37
B	—	22.22
C	6.35	8.50
D	0.96	1.09
E	—	1.77
F	29.90	30.40
G	10.69	11.18
H	5.20	5.72
J	16.64	17.15
K	11.15	12.25
L	—	26.67
M	3.84	4.19

All dimensions in mm.



PIN CONFIGURATION

1. BASE
2. EMITTER
3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-3	100 pcs/pkt	1.3 kg/100 pcs	12.5" x 8" x 1.8"	0.1K	17" x 11.5" x 21"	2K	27.5 kgs