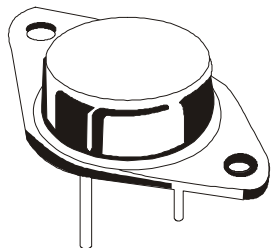


NPN SILICON PLANAR POWER TRANSISTOR

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/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +200	$^\circ\text{C}$

THERMAL RESISTANCE

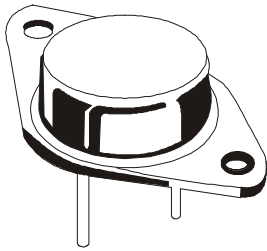
Junction to Case	$R_{th(j-c)}$	1.17	$^\circ\text{C/W}$
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(1) Pulse Test: Pulse Width =5ms, Duty Cycle $\leq 10\%$

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

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

NPN SILICON PLANAR POWER TRANSISTOR



2N3773

TO-3
Metal Can Package

ELECTRICAL CHARACTERISTICS (T_C=25°C unless specified otherwise)

Dynamic Characteristics

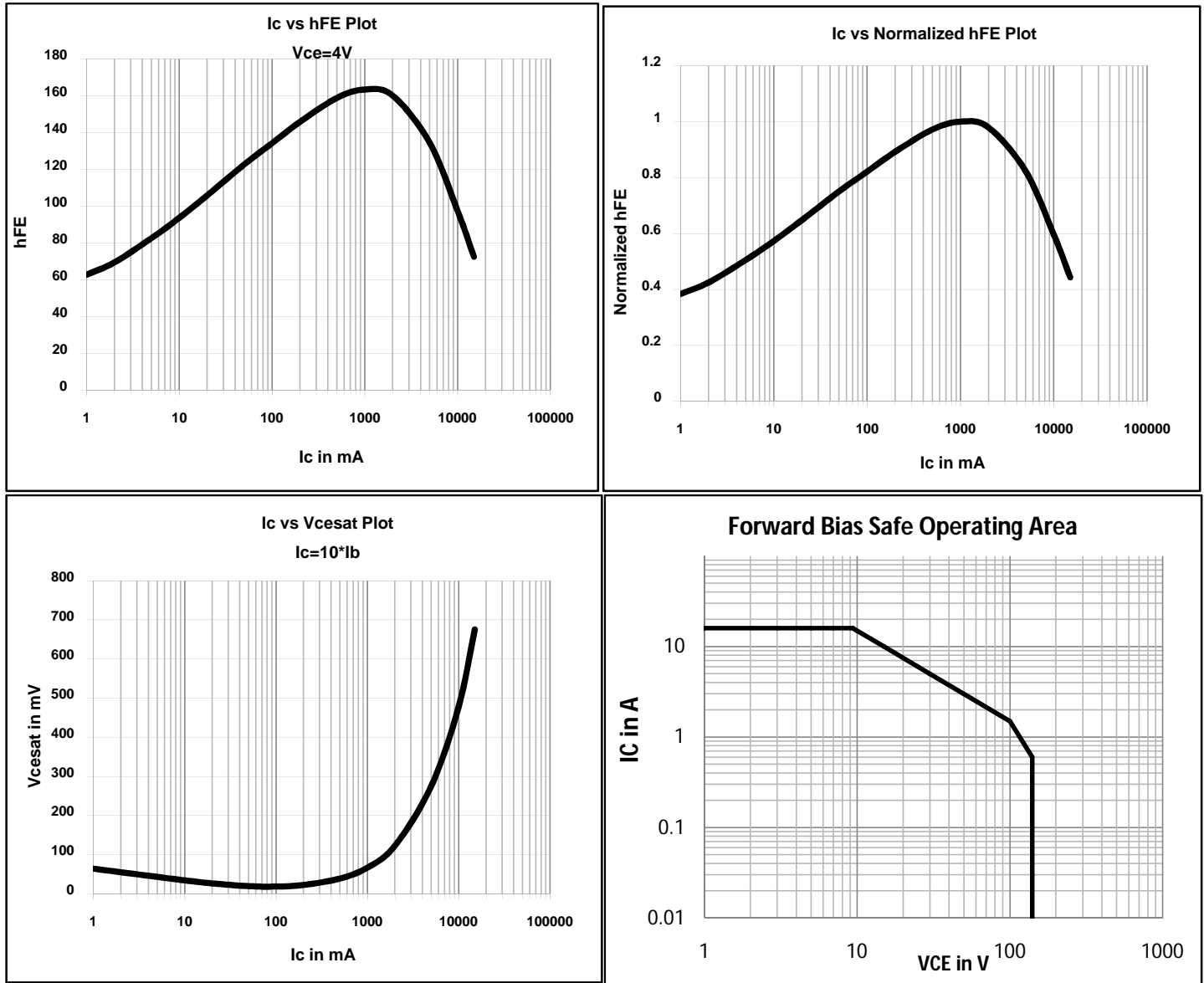
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Magnitude of Common Emitter Small Signal, Short Circuit, Forward Current Transfer Ratio	$ h_{fe} $	$I_C=1A, f=50KHz$	4.0		
Small Signal Current Gain	h_{fe}	$I_C=1A, V_{CE}=4V, f=1KHz$	40		

Second Breakdown Characteristics

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

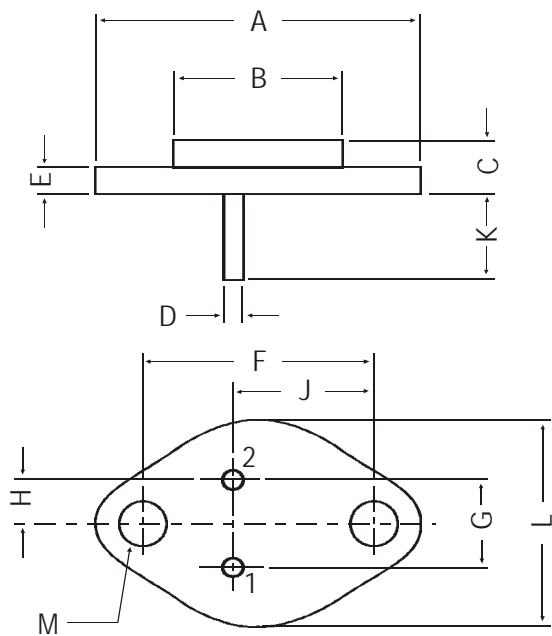
*Pulse Test: Pulse Width =300ms, Duty Cycle≤2%

CHARACTERISTICS PLOTS



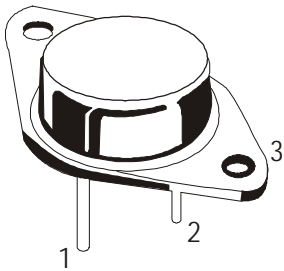
TO-3
Metal Can Package

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

Disclaimer

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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdil.com