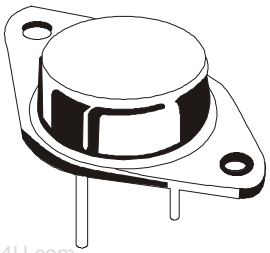
Transys Electronics LIMITED

NPN SILICON PLANAR POWER TRANSISTOR

2N3772



TO-3
Metal Can Package

Designed for Linear Amplifiers, Series Pass Regulators, and Inductive Switching Applications.

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	100	V
Collector Emitter Voltage	V_{CEO}	60	V
Collector Emitter Voltage	V_{CEX}	80	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current Continuous Peak	I_C	20 30	A
Base Current Continuous Peak	I_B	5 15	A
Power Dissipation @ T_c=25ºC Derate Above 25ºC	P_D	150 0.855	W W/ºC
Operating And Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +200	ºC

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	0.170	ºC/W

ELECTRICAL CHARACTERISTICS (T_C=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Emitter Sustaing Voltage	$V_{CEO\ (sus)}$*	I_C=0.2A, I_B=0	60		V
Collector Emitter Sustaing Voltage	$V_{CEX\ (sus)}$	I_C=0.2A, R_{BE}=100Ω,V_{EB}=(off)=1.5V	80		V
Collector Emitter Sustaing Voltage	$V_{CER\ (sus)}$	I_C=0.2A, R_{BE}=100Ω,	70		V
Collector Cut Off Current	I_{CEO}	V_{CE}=50V, I_B=0		10	mA
Collector Cut Off Current	I_{CEV}	V_{CE}=100V, V_{EB}(off)=1.5V T_c=150ºC V_{CE}=45V, V_{EB}(off)=1.5V		5.0 10	mA
Collector Cut Off Current	I_{CBO}	V_{CB}=100V, I_E=0		5.0	mA
Emitter Cut Off Current	I_{EBO}	V_{BE}=7V, I_C=0		5.0	mA
DC Current Gain	h_{FE}*	I_C=10A, V_{CE}=4V I_C=20A, V_{CE}=4V	15 5	60	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10A, I_B=1A I_C=20A, I_B=4A		1.4 4.0	V
Base Emitter On Voltage	$V_{BE(on)}$	I_C=10A, V_{CE}=4V		2.2	V

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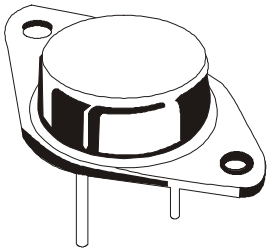

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ELECTRICAL CHARACTERISTICS (T_C=25ºC unless specified otherwise)

Second Breakdown

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Second Breakdown Energy with Base Forward Biased	I_S/b	V_{CE}=60V,t=1.0 s,Nonrepetitive	2.5		A

Dynamic Characteristics

Current Gain - Bandwidth Product	f_T	I_C=1.0A, V_{CE}=4V, f=50KHz	0.2		MHz
Small Signal Current Gain	h_{fe}	I_C=1A, V_{CE}=4V, f=1KHz	40		

***Pulse Test: Pulse Width ≤300μs, Repetitive Rate 60 cps.**

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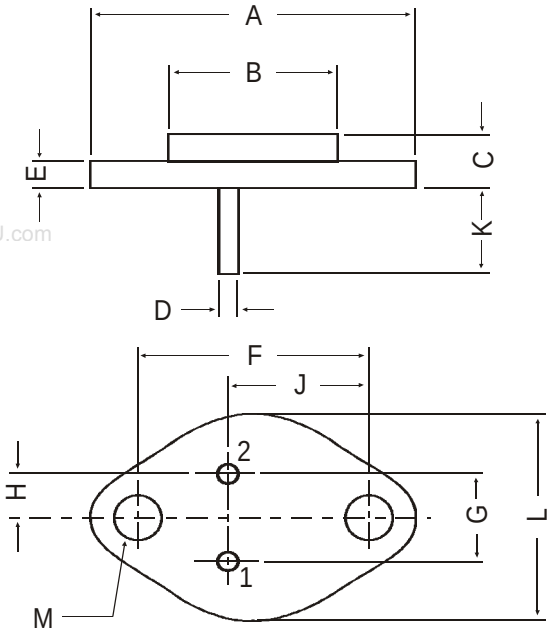
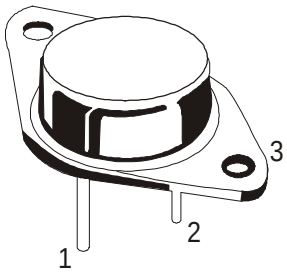


All dimensions in mm.

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



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