NPN 2N3773

HIGH POWER TRANSISTOR

The 2N3773 is silicon planar NPN transistor in Jedec TO-3 metal case.
They are intended for linear amplifiers and inductive switching applications.
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage	$I_B = 0$	140	V
V_{CBO}	Collector-Base Voltage	$I_E = 0$	160	V
V_{EBO}	Emitter-Base Voltage	$I_C = 0$	7	V
V_{CEX}	Collector-Emitter Voltage	V_{BE} = -1.5V	160	V
I_C	Collector Current		16	A
I_{CM}	Collector Peak Current		30	A
I_B	Base Current		4	A
I_{BM}	Base Peak Current		15	A
P_t	Total Power Dissipation	@ T_C = 25°	150	W
T_J	Junction Temperature		150	°C
T_{Stg}	Storage Temperature		-65 to +200	°C

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage (*)	I_C= 200 mA, I_B = 0	140	-	-	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 140 V, I_B= 0	-	-	2	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= 140 V, V_{BE}= -1.5V	-	-	2	mA
		V_{CE}= 140 V, V_{BE}= -1.5V T_{case} = 150°C	-	-	10	
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7 V, I_C= 0	-	-	5	mA
h_{FE}	DC Current Gain (*)	I_C= 8 A, V_{CE}= 4 V	15	-	60	-
		I_C= 16 A, V_{CE}= 4 V	5	-	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C= 8 A, I_B= 800 mA	-	-	1.4	V
		I_C= 16 A, I_B= 3.2 A	-	-	4	
V_{BE}	Base-Emitter Voltage (*)	I_C= 8 A, V_{CE}= 4 V	-	-	2.2	V
$I_{S/B}$	Second breakdown collector current	V_{CE}= 100 V, t_s = 1s	1.5	-	-	A

(*) Pulse Duration = 300 μs, Duty Cycle <= 2%

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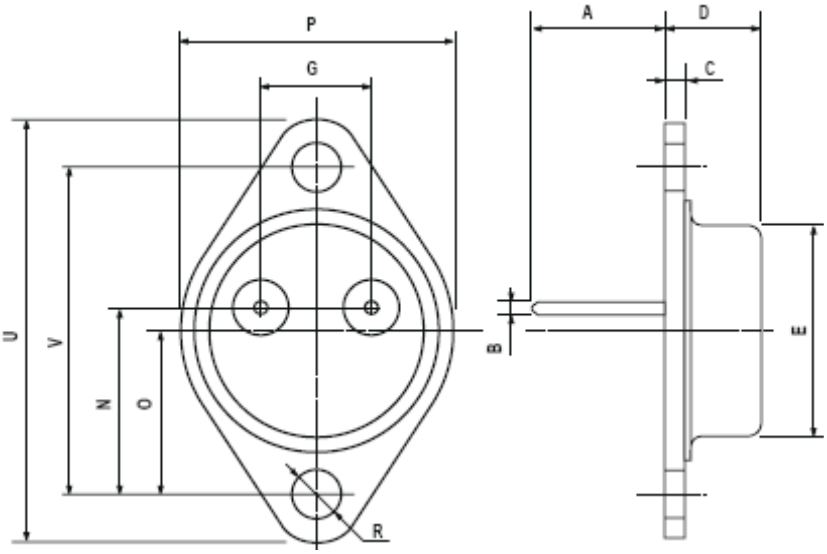
THERMAL CHARACTERISTICS

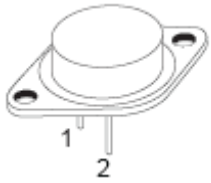
Symbol	Ratings	Value	Unit
R_{thJC}	Thermal Resistance, Junction to Case	1.17	°C/W

MECHANICAL DATA CASE TO-3

DIMENSIONS (mm)		
	min	max
A	11	13.10
B	0.97	1.15
C	1.5	1.65
D	8.32	8.92
F	19	20
G	10.70	11.1
N	16.50	17.20
P	25	26
R	4	4.09
U	38.50	39.30
V	30	30.30



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



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