



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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PNP POWER SILICON SWITCHING TRANSISTOR

Qualified per MIL-PRF-19500/612

DEVICES

2N7372

LEVELS

JAN
JANTX
JANTXV
JANS

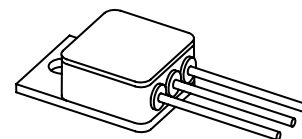
ABSOLUTE MAXIMUM RATINGS ($T_C = +25^\circ\text{C}$ unless otherwise noted)

Parameters / Test Conditions	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	80	Vdc
Collector-Base Voltage	V_{CBO}	100	Vdc
Emitter-Base Voltage	V_{EBO}	5.5	Vdc
Collector Current	I_C	5.0	Adc
Total Power Dissipation @ $T_A = +25^\circ\text{C}$ ⁽¹⁾ @ $T_C = +25^\circ\text{C}$ ⁽²⁾	P_T	4.0 58	W
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200	$^\circ\text{C}$
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	3	$^\circ\text{C/W}$

- 1) Derate linearly 22.8mW/ $^\circ\text{C}$ for $T_A > 25^\circ\text{C}$
- 2) Derate linearly 331mW/ $^\circ\text{C}$ for $T_C > 25^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = +25^\circ\text{C}$, unless otherwise noted)

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage $I_C = 100\text{mA}$	$V_{(BR)CEO}$	80		Vdc
Collector-Emitter Cutoff Current $V_{CE} = 60\text{Vdc}, V_{BE} = 0\text{Vdc}$ $V_{CE} = 100\text{Vdc}, V_{BE} = 0\text{Vdc}$	I_{CES1} I_{CES2}		1.0 1.0	μAdc mAdc
Collector-Emitter Cutoff Current $V_{CE} = 40\text{Vdc}, I_B = 0$	I_{CEO}		50	μAdc
Emitter-Base Cutoff Current $V_{EB} = 4.0\text{Vdc}$ $V_{EB} = 5.5\text{Vdc}$	I_{EBO1} I_{EBO2}		1.0 1.0	μAdc mAdc



TO-254AA

PIN 1 = BASE
PIN 2 = COLLECTOR
PIN 3 = EMITTER



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TECHNICAL DATA SHEET

PNP POWER SILICON SWITCHING TRANSISTOR

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ELECTRICAL CHARACTERISTICS ($T_A = +25^\circ\text{C}$, unless otherwise noted) (CONT.)

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS ⁽³⁾				
Forward-Current Transfer Ratio $I_C = 0.05\text{A}_{dc}$, $V_{CE} = 5.0\text{V}_{dc}$ $I_C = 2.5\text{A}_{dc}$, $V_{CE} = 5.0\text{V}_{dc}$ $I_C = 5.0\text{A}_{dc}$, $V_{CE} = 5.0\text{V}_{dc}$	h_{FE1} h_{FE2} h_{FE3}	50 70 40	--- 200 ---	
Base-Emitter Non-Saturated Voltage $V_{CE} = 5.0\text{V}_{dc}$, $I_C = 2.5\text{A}_{dc}$	V_{BE}		1.45	Vdc
Base-Emitter Saturation Voltage $I_C = 2.5\text{A}_{dc}$, $I_B = 0.25\text{A}_{dc}$ $I_C = 5.0\text{A}_{dc}$, $I_B = 0.5\text{A}_{dc}$	$V_{BE(sat)1}$ $V_{BE(sat)2}$		1.45 2.2	Vdc
Collector-Emitter Saturation Voltage $I_C = 2.5\text{A}_{dc}$, $I_B = 0.25\text{A}_{dc}$ $I_C = 5.0\text{A}_{dc}$, $I_B = 0.5\text{A}_{dc}$	$V_{CE(sat)1}$ $V_{CE(sat)2}$		0.75 1.5	Vdc

DYNAMIC CHARACTERISTICS

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Common Emitter Small Signal, Short Circuit Forward Current Transfer Ratio $V_{CE} = 5\text{V}_{dc}$, $I_C = 100\text{mA}_{dc}$, $f = 1\text{kHz}$	h_{fe}	50		
Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = 0.5\text{A}_{dc}$, $V_{CE} = 5\text{V}_{dc}$, $f = 10\text{MHz}$	$ h_{fe} $	7.0		
Output Capacitance $V_{CB} = 10\text{V}_{dc}$, $I_E = 0$, $100\text{kHz} \leq f \leq 1.0\text{MHz}$	C_{obo}		250	pF

SAFE OPERATING AREA

DC Tests

$T_C = +25^\circ\text{C}$, 1 Cycle, $t = 1\text{s}$

Test 1

$V_{CE} = 12\text{V}_{dc}$, $I_C = 5.0\text{A}_{dc}$

Test 2

$V_{CE} = 32\text{V}_{dc}$, $I_C = 1.5\text{A}_{dc}$

Test 3

$V_{CE} = 80\text{V}_{dc}$, $I_C = 100\text{mA}_{dc}$

(3) Pulse Test: Pulse Width = $300\mu\text{s}$, Duty Cycle $\leq 2.0\%$