6 Lake Street, Lawrence, MA 01841
1-800-446-1158 / (978) 620-2600 / Fax: (978) 689-0803
Website: http: //www.microsemi.com

TECHNICAL DATA SHEET

PNP POWER SILICON SWITCHING TRANSISTOR

Qualified per MIL-PRF-19500/612

DEVICES

2N7372

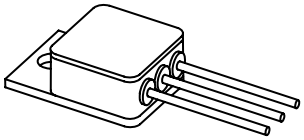
LEVELS

JAN
JANTX
JANTXV
JANS

ABSOLUTE MAXIMUM RATINGS (T_C = +25°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°C (1) @ T_C = +25°C (2)	P_T	4.0 58	W
Operating & Storage Junction Temperature Range	T_j , T_{stg}	-65 to +200	°C
Thermal Resistance, Junction-to Case	$R_{\theta JC}$	3	°C/W

1) Derate linearly 22.8mW/°C for T_A > 25°C
2) Derate linearly 331mW/°C for T_C > 25°C



TO-254AA

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

ELECTRICAL CHARACTERISTICS *(T_A = +25°C, unless otherwise noted)*

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

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ELECTRICAL CHARACTERISTICS ***(T_A = +25°C, unless otherwise noted)*** **(CONT.)**

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS (3)				
Forward-Current Transfer Ratio I_C = 0.05Adc, V_{CE} = 5.0Vdc I_C = 2.5Adc, V_{CE} = 5.0Vdc I_C = 5.0Adc, V_{CE} = 5.0Vdc	 h_{FE1} h_{FE2} h_{FE3}	 50 70 40	 --- 200 ---	
Base-Emitter Non-Saturated Voltage V_{CE} = 5.0Vdc, I_C = 2.5Adc	V_{BE}		1.45	Vdc
Base-Emitter Saturation Voltage I_C = 2.5Adc, I_B = 0.25Adc I_C = 5.0Adc, I_B = 0.5Adc	 $V_{BE(sat)1}$ $V_{BE(sat)2}$		 1.45 2.2	Vdc
Collector-Emitter Saturation Voltage I_C = 2.5Adc, I_B = 0.25Adc I_C = 5.0Adc, I_B = 0.5Adc	 $V_{CE(sat)1}$ $V_{CE(sat)2}$		 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} = 5Vdc, I_C = 100mAdc, f = 1kHz	h_{fe}	50		
Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio I_C = 0.5Adc, V_{CE} = 5Vdc, f = 10MHz	$\|h_{fe}\|$	7.0		
Output Capacitance V_{CB} = 10Vdc, I_E = 0, 100kHz ≤ f ≤ 1.0MHz	C_{obo}		250	pF

SAFE OPERATING AREA

DC Tests

T_C = +25°C, 1 Cycle, t = 1s

Test 1

V_{CE} = 12Vdc, I_C = 5.0Adc

Test 2

V_{CE} = 32Vdc, I_C = 1.5Adc

Test 3

V_{CE} = 80Vdc, I_C = 100mAdc

(3) Pulse Test: Pulse Width = 300µs, Duty Cycle ≤ 2.0%