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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Microsemi LAWRENCE

TECHNICAL DATA

NPN HIGH POWER SILICON TRANSISTOR

Qualified per MIL-PRF-19500/488

Devices		*Qualified Level*
2N5671	**2N5672**	**JAN JANTX JANTXV**

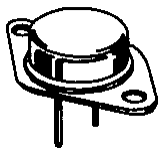
MAXIMUM RATINGS

Ratings	Symbol	2N5671	2N5672	Unit
Collector-Emitter Voltage	V_{CEO}	90	120	Vdc
Collector-Base Voltage	V_{CBO}	120	150	Vdc
Emitter-Base Voltage	V_{EBO}	7.0		Vdc
Base Current	I_B	10		Adc
Collector Current	I_C	30		Adc
Total Power Dissipation @ $T_A = +25^0C$ (1) @ $T_C = +25^0C$ (2)	P_T	6.0 140		W W
Operating & Storage Temperature Range	T_{op}, T_{stg}	-65 to +200		^0C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	1.25	$^0C/W$

1) Derate linearly 34.2 mW/^{0}C for $T_A > +25^0C$
2) Derate linearly 800 mW/^{0}C for $T_C > +25^0C$



TO-3*
(TO-204AA)

*See appendix A for package outline

ELECTRICAL CHARACTERISTICS ($T_C = 25^0C$ unless otherwise noted)

Characteristics		Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage I_C = 200 mAdc	2N5671 2N5672	$V_{(BR)CEO}$	90 120		Vdc
Collector-Emitter Breakdown Voltage I_C = 200 mAdc	2N5671 2N5672	$V_{(BR)CER}$	110 140		Vdc
Collector-Emitter Breakdown Voltage I_C = 200 mAdc	2N5671 2N5672	$V_{(BR)CEX}$	120 150		Vdc
Collector-Emitter Cutoff Current V_{CE} = 80 Vdc		I_{CEO}		10	mAdc
Collector-Emitter Cutoff Current V_{CE} = 110 Vdc, V_{BE} = 1.5 Vdc V_{CE} = 135 Vdc, V_{BE} = 1.5 Vdc	2N5671 2N5672	I_{CEX}		12 10	mAdc

ELECTRICAL CHARACTERISTICS (con't)

Characteristics		Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS (con't)					
Collector-Base Cutoff Current					
V_{CB} = 120 Vdc	2N5671	I_{CBO}		25	mAdc
V_{CB} = 150 Vdc	2N5672			25	
Emitter-Base Cutoff Current					
V_{EB} = 7.0 Vdc		I_{EBO}		10	mAdc
ON CHARACTERISTICS (3)					
Forward-Current Transfer Ratio					
I_C = 15 Adc, V_{CE} = 2.0 Vdc		h_{FE}	20	100	
I_C = 20 Adc, V_{CE} = 5.0 Vdc			20		
Collector-Emitter Saturation Voltage					
I_C = 15 Adc, I_B = 1.2 Adc		$V_{CE(sat)}$		0.75	Vdc
I_C = 30 Adc, I_B = 6.0Adc				5.0	
Base-Emitter Saturation Voltage					
I_C = 15 Adc, I_B = 1.2 Adc		$V_{BE(sat)}$		1.5	Vdc
DYNAMIC CHARACTERISTICS					
Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio					
I_C = 2.0 Adc, V_{CE} = 10 Vdc, f = 5.0 MHz		$\lvert h_{fe} \rvert$	10	40	
Output Capacitance					
V_{CB} = 10 Vdc, I_E = 0, 100 kHz ≤ f ≤ 1.0 MHz		C_{obo}		900	pF
SWITCHING CHARACTERISTICS					
Turn-On Time					
V_{CC} = 30 ± 2.0 Vdc; I_C = 15 Adc; I_{B1} = 1.2 Adc		t_{on}		0.5	µs
Turn-Off Time					
V_{CC} = 30 ± 2.0 Vdc; I_C = 15 Adc; I_{B1} = I_{B2} = 1.2 Adc		t_{off}		1.5	µs

SAFE OPERATING AREA

DC Tests

T_C = +25^{0}C, 1 Cycle, t = 1.0 s

Test

V_{CE} = 24 Vdc, I_C = 5.8 Adc

Test 2

V_{CE} = 45 Vdc, I_C = 0.9 Adc

Test 3

V_{CE} = 4.67 Vdc, I_C = 30 Adc

Test 4

V_{CE} = 90 Vdc, I_C = 0.19 Adc 2N5671

Test 5

V_{CE} = 120 Vdc, I_C = 0.11 Adc 2N5672

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