



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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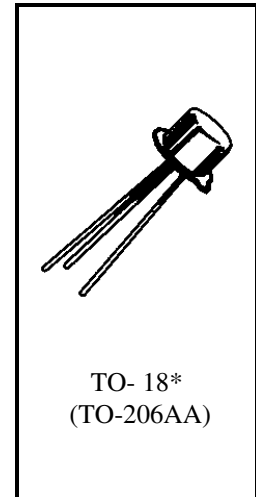
NPN SILICON LOW POWER TRANSISTOR
Qualified per MIL-PRF-19500/ 313
Devices
**2N2432
2N2432A**
Qualified Level
**JAN
JANTX
JANTXV**
MAXIMUM RATINGS

Ratings	Symbol	2N2432	2N2432A	Unit
Collector-Emitter Voltage	V_{CEO}	30	45	Vdc
Collector-Base Voltage	V_{CBO}	30	45	Vdc
Emitter-Collector Voltage	V_{ECO}	15	18	Vdc
Collector Current	I_C	100		mAdc
Total Power Dissipation	P_T	@ $T_A = +25^{\circ}\text{C}$ ⁽¹⁾	300	mW
		@ $T_C = +25^{\circ}\text{C}$ ⁽²⁾	600	mW
Operating & Storage Junction Temp. Range	T_{stg}	-65 to +200		$^{\circ}\text{C}$
	T_J	-65 to +175		$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	0.25	$\text{mW}/^{\circ}\text{C}$

 1) Derate linearly 2.0 $\text{mW}/^{\circ}\text{C}$ above $T_A > +25^{\circ}\text{C}$

 2) Derate linearly 4.0 $\text{mW}/^{\circ}\text{C}$ above $T_C > +25^{\circ}\text{C}$


*See appendix A for package outline

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

Characteristics	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Emitter-Collector Breakdown Voltage $I_E = 100 \mu\text{Adc}, I_B = 0$	2N2432	$V_{(BR)ECO}$	15	Vdc
	2N2432A		18	
$I_E = 10 \text{ mAdc}, I_B = 0$	Both		10	
Collector-Emitter Breakdown Current $I_C = 10 \text{ mAdc}$	2N2432	$V_{(BR)CEO}$	30	Vdc
	2N2432A		45	
Collector-Emitter Cutoff Current $V_{CB} = 25 \text{ Vdc}$	2N2432	I_{CES}	10	ηAdc
	2N2432A		10	

2N2432, 2N2432A JAN SERIES

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS (con't)				
Collector-Emitter Cutoff Current V _{CB} = 30 Vdc 2N2432 V _{CB} = 25 Vdc 2N2432 V _{CB} = 40 Vdc 2N2432A V _{CB} = 45 Vdc 2N2432A	I _{CBO}		100 10 100 10	μA _{dc} ηA _{dc} μA _{dc} ηA _{dc}
Emitter-Collector Cutoff Current V _{EC} = 15 Vdc, V _{BC} = 0 Vdc	I _{ECS}		2.0	ηA _{dc}
Emitter-Base Cutoff Current V _{EB} = 15 Vdc	I _{EBO}		2.0	ηA _{dc}

ON CHARACTERISTICS (1)

Forward-Current Transfer Ratio I _C = 10 μA _{dc} , V _{CE} = 5.0 Vdc I _C = 1.0 mA _{dc} , V _{CE} = 5.0 Vdc	h _{FE}	30 80	400	
Forward-Current Transfer Ratio (Inverted Connection) I _C = 0.2 mA _{dc} , V _{CE} = 5.0 Vdc 2N2432 2N2432A	h _{FE(inv)}	2.0 3.0		
Collector-Emitter Saturation Voltage I _C = 10 Vdc, I _B = 0.5 mA _{dc}	V _{CE(sat)}		0.15	mVdc
Emitter-Collector Offset Voltage I _E = 0 mA _{dc} , I _B = 200 μA _{dc} 2N2432 2N2432A I _E = 0 mA _{dc} , I _B = 1.0 mA _{dc} 2N2432 2N2432A	V _{EC(ofs)}		0.5 0.4 0.1 0.7	mVdc

DYNAMIC CHARACTERISTICS

Forward Current Transfer Ratio I _C = 1.0 mA _{dc} , V _{CE} = 5.0 Vdc, f = 20 MHz	h _{fe}	2.0	10	
Output Capacitance V _{CB} = 0 Vdc, I _E = 0, 100 kHz ≤ f ≤ 1.0 MHz	C _{obo}		12	pF
Input Capacitance V _{EB} = 0 Vdc, I _C = 0, 100 kHz ≤ f ≤ 1.0 MHz	C _{ibo}		12	pF

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