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

UNITIZED DUAL NPN SILICON TRANSISTOR

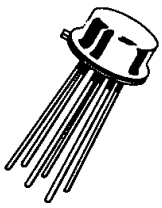
Qualified per MIL-PRF-19500/ 270

Devices	*Qualified Level*
2N2060 **2N2060L**	**JAN** **JANTX** **JANTXV**

MAXIMUM RATINGS

Ratings	Symbol	2N2060		Unit
Collector-Emitter Voltage	V_{CEO}	60		Vdc
Collector-Base Voltage	V_{CBO}	100		Vdc
Emitter-Base Voltage	V_{EBO}	7.0		Vdc
Collector Current	I_C	500		mAdc
		One Section	Both Sections	
Total Power Dissipation @ T_A = +25^{0}C (1) @ T_C = +25^{0}C (2)	P_T	540 1.5	600 2.12	mW W
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200		^{0}C

1) Derate linearly 3.08 mW/^{0}C for T_A > 25^{0}C for one section, 3.48 mW/^{0}C for both sections
2) Derate linearly 8.6 mW/^{0}C for T_C > 25^{0}C for one section, 12.1 mW/^{0}C for both sections



TO-78*

*See appendix A for package outline

ELECTRICAL CHARACTERISTICS (T_A = +25^{0}C unless otherwise noted)

Characteristics	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage(3) R_{BE} ≤ 10 Ω, I_C = 10 mAdc	$V_{(BR)CER}$	80		Vdc
Collector-Emitter Breakdown Voltage I_C = 30 mAdc	$V_{(BR)CEO}$	60		Vdc
Collector-Base Cutoff Current V_{CB} = 100 Vdc V_{CB} = 80 Vdc	I_{CBO}		10 2.0	µAdc ηAdc
Emitter-Base Cutoff Current V_{EB} = 7.0 Vdc V_{EB} = 5.0 Vdc	I_{EBO}		10 2.0	µAdc ηAdc

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS [3]				
Forward-Current Transfer Ratio				
I_C = 10 µAdc, V_{CE} = 5.0 Vdc	h_{FE}	25	75	
I_C = 100 µAdc, V_{CE} = 5.0 Vdc		30	90	
I_C = 1.0 mAdc, V_{CE} = 5.0 Vdc		40	120	
I_C = 10 mAdc, V_{CE} = 5.0 Vdc		50	150	
Collector-Emitter Saturation Voltage I_C = 50 mAdc, I_B = 5.0 mAdc	$V_{CE(sat)}$		0.3	Vdc
Base-Emitter Saturation Voltage I_C = 50 mAdc, I_B = 5.0 mAdc	$V_{BE(sat)}$		0.9	Vdc
DYNAMIC CHARACTERISTICS				
Common Emitter Small-Signal Short-Circuit Forward-Current Transfer ratio I_C = 50 mAdc, V_{CE} = 10 Vdc, f = 20 MHz	$\lvert h_{fe} \rvert$	3	25	
Small-Signal Short-Circuit Input Impedance I_C = 1.0 mAdc, V_{CB} = 5.0 Vdc, f = 1.0 kHz	h_{ib}	20	30	Ω
Small-Signal Short-Circuit Forward-Current Transfer Ratio I_C = 1.0 mAdc, V_{CE} = 5.0 Vdc, f = 1.0 kHz	h_{fe}	50	150	
Small-Signal Short-Circuit Input Impedance I_C = 1.0 mAdc, V_{CE} = 5.0 Vdc, f = 1.0 kHz	h_{ie}	1,000	4,000	Ω
Small-Signal Open-Circuit Output Admittance I_C = 1.0 mAdc, V_{CE} = 5.0 Vdc, f = 1.0 kHz	h_{oe}	0	16	µmhos
Input Capacitance V_{EB} = 0.5 Vdc, I_E = 0, 100 kHz ≤ f ≤ 1.0 MHz	C_{ibo}		85	pF
Output Capacitance V_{CB} = 10 Vdc, I_E = 0, 100 kHz ≤ f ≤ 1.0 MHz	C_{obo}		15	pF

(3)Pulse Test: Pulse Width 250 to 350µs, Duty Cycle ≤ 2.0%.