# mail

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!



## Contact us

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### TECHNICAL DATA

#### SILICON CONTROLLED RECTIFIER

Qualified per MIL-PRF-19500/276

Devices					Qualified Level
2N2323 2N2323S 2N2323A 2N2323AS	2N2324 2N2324S 2N2324A 2N2324AS	2N2326 2N2326S 2N2326A 2N2326AS	2N2328 2N2328S 2N2328A 2N2328AS	2N2329 2N2329S	JAN JANTX JANTXV

#### MAXIMUM RATINGS

Ratings	Sym	2N2323,S/ 2N2323A,S	2N2324,S/ 2N2324A,S	2N2326,S/ 2N2326A,S	2N2328,S/ 2N2328A,S	2N2329,S	Unit
Reverse Voltage	V <sub>RM</sub>	50	100	200	300	400	Vdc
Working Peak Reverse Voltage	V <sub>RM</sub>	75	150	300	400	500	Vpk
Forward Blocking Voltage	V <sub>FBXM</sub>	50 <sup>(3/4)</sup>	$100^{(3/4)}$	$200^{(3/4)}$	300 <sup>(3/4)</sup>	$400^{(3)}$	Vpk
Average Forward Current <sup>(1)</sup>	Io			0.22			Adc
Forward Current Surge Peak <sup>(2)</sup>	I <sub>FSM</sub>			15			Adc
Cathode-Gate Current	$V_{\text{KGM}}$			6			Vpk
Operating Temperature	T <sub>op</sub>			-65 to +125			<sup>0</sup> C
Storage Junction Temp	T <sub>stg</sub>			-65 to +150			<sup>0</sup> C

1) This average forward current is for an ambient temperature of 80<sup>0</sup>C and 180 electrical degrees of conduction.

2) Surge current is non-recurrent. The rate of rise of peak surge current shall not exceed 40 A during the first 5 µs after switching from the 'off' (blocking) to the 'on' (conducting) state. This is measured from the point where the thyristor voltage has decayed to 90% of its initial blocking value.

- 3) Gate connected to cathode through 1,000 ohm resistor.
- 4) Gate connected to cathode through 2,000 ohm resistor.

#### ELECTRICAL CHARACTERISTICS

Characteri	stics	Symbol	Min.	Max.	Unit
SUBGROUP 2 TESTING					
Reverse Blocking Current					
$R_2 = 1 k\mu$	2N2323 thru 2N2329				
	2N2323S thru 2N2329S				
$R_2 = 2 k\mu$	2N2323A thru 2N2328A				
	2N2323AS thru 2N2328AS	т		10	uAda
$V_R = 50 V dc$	2N2323, S, A, AS	I <sub>RBX1</sub>		10	μAdc
$V_R = 100 \text{ Vdc}$	2N2324, S, A, AS				
$V_R = 200 \text{ Vdc}$	2N2326, S, A, AS				
$V_R = 300 \text{ Vdc}$	2N2328, S, A, AS				
$V_R = 400 \text{ Vdc}$	2N2329, S,				
6 Lake Street, Lawrence, MA 01841					1201

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\*See appendix A for package outline

Charac	cteristics	Symbol	Min.	Max.	Unit
Forward Blocking Current		*			
$R_2 = 1 k\Omega$	2N2323 thru 2N2329				
	2N2323S thru 2N2329S				
$R_2 = 2 k\Omega$	2N2323A thru 2N2328A				
	2N2323AS thru 2N2328AS	т		10	uAda
$V_R = 50 Vdc$	2N2323, S, A, AS	$I_{FBX1}$		10	μAdc
$V_R = 100 \text{ Vdc}$	2N2324, S, A, AS				
$V_R = 200 \text{ Vdc}$	2N2326, S, A, AS				
$V_R = 300 \text{ Vdc}$	2N2328, S, A, AS				
$V_R = 400 \text{ Vdc}$	2N2329, S				
Reverse Gate Current		Inc		200	μAdc
$V_{KG} = 6 V dc$		$I_{KG}$		200	μΑας
Gate Trigger Voltage and Current					
$V_2 = V_{FBX} = 6 \text{ Vdc}; R_L = 100 \Omega$					
$R_e = 1 k\Omega$	2N2323 thru 2N2329 and	$V_{GT1}$	0.35	0.80	Vdc
	2N2323S thru 2N2329S	$I_{GT1}$		200	μAdc
$R_e = 2 k\Omega$	2N2323A thru 2N2328A and	$V_{GT1}$	0.35	0.60	Vdc
	2N2323AS thru 2N2328AS	$I_{GT1}$		20	μAdc
UBGROUP 4 TESTING					
Exponential Rate of Voltage Rise	$T_{\rm A} = 125^{0}{\rm C}$				
$50 \ \Omega \leq R_L \leq 400 \ \Omega, C = 0.1 \text{ to } 1$					
test duration = $15$ seconds					
$dv/dt = 1.8 v/\mu s$ , $R_3 = 1 k\Omega$	2N2323 thru 2N2329 and				
	2N2323S thru 2N2329S				
$dv/dt = 0.7 v/u_0 R = 2 lrO$	2N2323A thru 2N2328A and				Vdc
$dv/dt = 0.7 v/\mu s$ , $R_3 = 2 k\Omega$	2N2323A thru 2N2328A and 2N2323AS thru 2N2328AS	V <sub>FBX</sub>			vuc
	2N2525A5 uliu 2N2526A5				
$V_{AA} = 50 V dc$	2N2323, S, A, AS		47		
$V_{AA} = 100 \text{ Vdc}$	2N2324, S, A, AS		95		
$V_{AA} = 200 \text{ Vdc}$	2N2326, S, A, AS		190		
$V_{AA} = 300 \text{ Vdc}$	2N2328, S, A, AS		285		
$V_{AA} = 400 \text{ Vdc}$	2N2329, S		380		
Forward "on" Voltage					
i <sub>FM</sub> = 4a (pk) (pulse), pulse widt	h = 8.5  ms, max; duty cycle = 2%  max	V <sub>FM</sub>		2.2	V(pk)
Holding Current					
$V_{AA} = 24$ Vdc max, $I_{F1} = 100$ mA	Adc, $I_{F2} = 10 \text{ mAdc}$				
Gate trigger source voltage = $6 V$	/dc,				
trigger pulse width = $25 \mu s \min$ .	$R_2 = 330 \Omega$	Ţ		2.0	mAda
$R_3 = 1 k\Omega$	2N2323 thru 2N2329 and	I <sub>HOX</sub>		2.0	mAdc
	2N2323S thru 2N2329S				
$R_3 = 2 k\Omega$	2N2323A thru 2N2328A and				
	2N2323AS thru 2N2328AS				

### 2N2323, A, AS, S; 2N2324, A, AS, S; 2N2326, A, AS, S; 2N2328, A, AS, S; 2N232, S JAN SERIES ELECTRICAL CHARACTERISTICS (con't)