

IS/ISO 9002 Lic# QSC/L-000019.3

An IS/ISO 9002 and IECQ Certified Manufacturer

NPN SILICON PLANAR EPITAXIAL TRANSISTOR

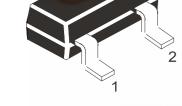
PIN CONFIGURATION (NPN) 1 = BASE

- 2 = EMITTER 3 = COLLECTOR



CSD1306 (SAW)

SOT-23 Formed SMD Package



Marking CSD1306E=06

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	30 30 50 50	V
Collector Emitter Voltage	V_{CEO}	15 N M M	V
Emitter Base Voltage	V_{EBO}	99 5	V
Collector Current Continuous	Ic	700	mA
Collector Current Peak	I _{CP}	C COM 1	А
Power Dissipation @ T _a =25°C	P_D	200	mW
Operating and Storage Junction Temperature Range	T_{j},T_{stg}	- 55 to +150	

Electrical Characteristics (T_a=25°C unless specified otherwise)

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DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT	
Collector Base Voltage	V _{CBO}	I _C =10μΑ, I _E =0	30	4 44		V	
Collector Emitter Voltage	V _{CEO}	I _C =10mA, I _B =0	15			V	
Emitter Base Voltage	V _{EBO}	Ι _Ε =1μΑ, Ι _C =0	5			V	
Collector Cut off Current	I _{CBO}	V_{CB} =20V, I_{E} =0			1.0	μΑ	
Emitter Cut off Current	I _{EBO}	V _{EB} =5V, I _C =0			1.0	μΑ	
Base Emitter On Voltage	V _{BE (on)}	V _{CE} =1V, I _C =150mA			1.0	V	
Collector Emitter Saturation Voltage	V _{CE (sat)}	I _C =500mA, I _B =50mA	(1)	47	0.5	V	
DC Current Gain	h _{FE}	V _{CE} =1V, I _C =150mA	250	W.07	1200		
Transition Frequency	f⊤	V _{CE} =1V, I _C =150mA,		250		MHz	
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz			10	pF	
Input Capacitance	C _{ib}	V _{EB} =0.5V, I _C =0, f=1MHz		100	рF		

h _{FE} Classification	D : 250 - 500	E:300-800	F:600-1200	

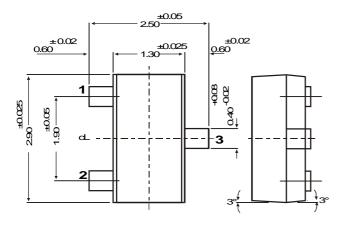
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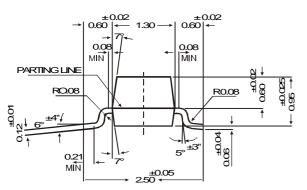


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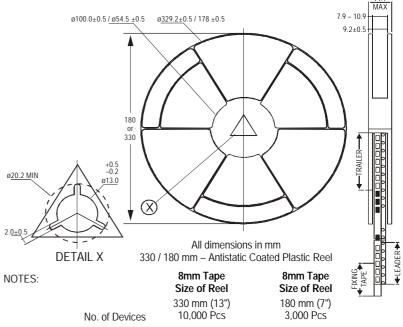
SOT-23 Formed SMD Package

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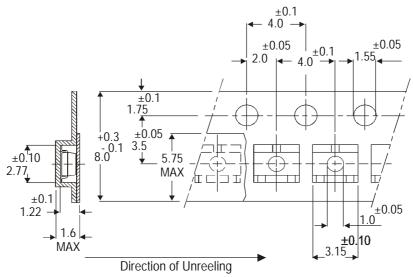


SOT-23 Package Reel Information Reel Specifications for W Packing (13") and 7"



- 1. The bandolier of 330 mm reel contains at least 10,000 devices.
- 2. The bandolier of 180 mm reel contains at least 3,000 devices.
- 3. No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel. 15 empty compartments for 180 mm reel.
- Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
- 5. The carrier tape (leader) starts with at least 75 empty positions (equivalent to 330 mm). In order to fix the carrier tape a self adhesive tape of 20 to 50 mm is applied. At the end of the bandolier at least 40 empty positions (equivalent to 160 mm) are there.

Tape Specification for SOT-23 Surface Mount Device



All dimensions in mm

Packing Detail

PACKAGE	STANDA	ARDPACK	INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
SOT-23 T&R	3K/reel	136 gm/3K pcs	3" x 7.5" x 7.5"	12 K	17" x 15" x 13.5"	192 K	12 kgs
			9" x 9" x 9"	51 K	19" x 19" x 19"	408 K	28 kgs
	10K/reel	415 gm/10K pcs	13" x 13" x 0.5"	10 K	17" x 15" x 13.5"	300 K	16 kgs

Notes CSD1306 (SAW)

SOT-23 Formed SMD Package

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



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