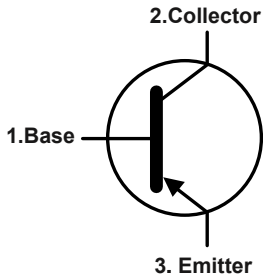


Features

- Low saturation voltage
- As Complementary Type of the NPN Transistor 2SCR553SQ is Recommended

Equivalent Circuit



SOT-89



1.Base 2.Collector 3. Emitter

Marking Code : DL

Absolute Maximum Ratings

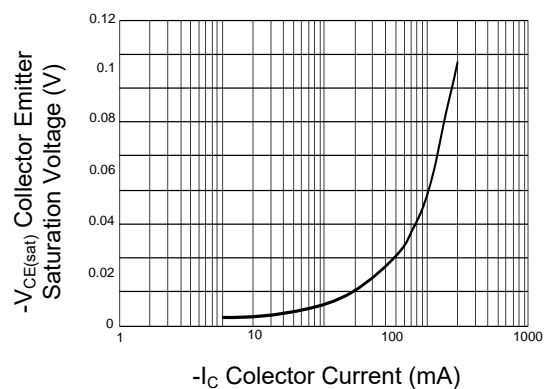
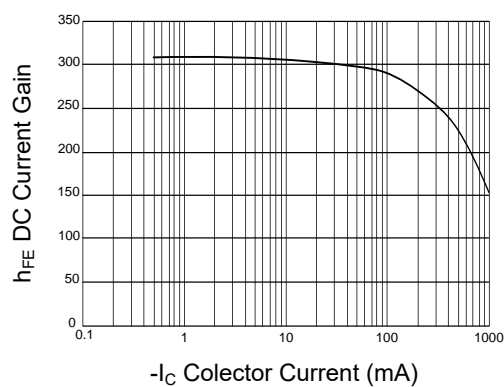
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	50	V
Collector Emitter Voltage	$-V_{CEO}$	50	V
Emitter Base Voltage	$-V_{EBO}$	6	V
Collector Current	$-I_C$	2	A
Maximum Power Dissipation	P_D	0.5	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V _{CE} = -2 V, I _C = -50 mA	H _{FE}	180	--	450	--
Collector Base Cutoff Current at V _{CB} = -50 V	-I _{CBO}	--	--	0.1	μA
Emitter Base Cutoff Current at V _{EB} = -4 V	-I _{EBO}	--	--	0.1	μA
Collector Base Breakdown Voltage at I _C = -100 μA	-V _{(BR)CBO}	50	--	--	V
Collector Emitter Breakdown Voltage at I _C = -1 mA	-V _{(BR)CEO}	50	--	--	V
Emitter Base Breakdown Voltage at I _E = -100 μA	-V _{(BR)EBO}	6	--	--	V
Collector Emitter Saturation Voltage at I _C = -700 mA, I _B = -35 mA	-V _{CE(sat)}	--	--	0.4	V
Base Emitter Saturation Voltage at I _C = -500 mA, I _B = -50 mA	-V _{BE(sat)}	--	--	1.2	V
Transition Frequency at V _{CE} = -10 V, I _E = -300 mA, f=100MHz	F _T	--	320	--	MHz

Typical Characteristics Curves



Package Outline

SOT-89

Dimensions in mm

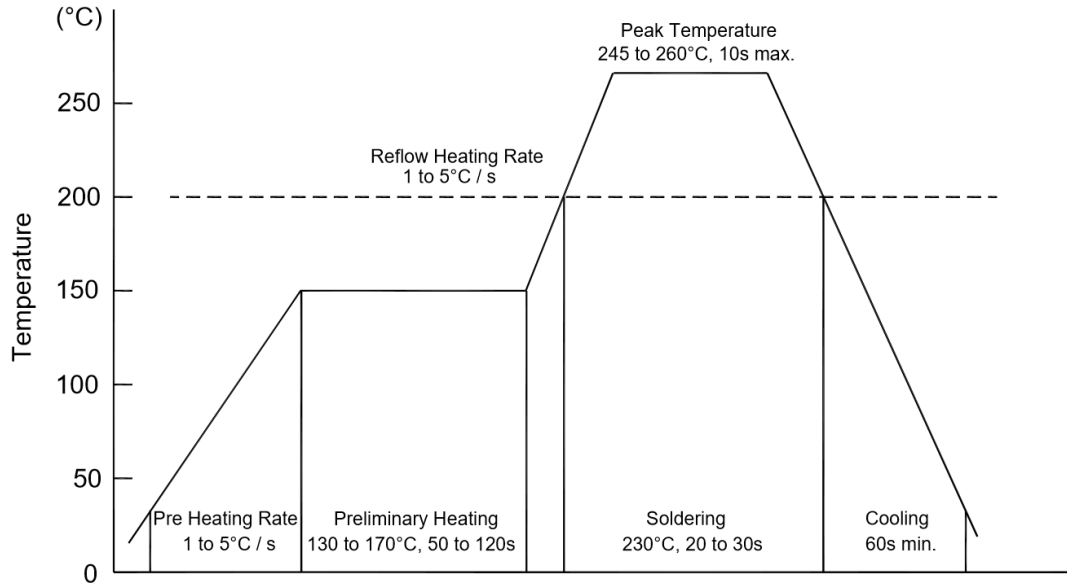


Ordering Information

Device	Package	Shipping
2SAR553SQ	SOT-89	1,000PCS/Reel&7inches
		3,000PCS/Reel&13inches

Conditions of Soldering and Storage

◆ Recommended condition of reflow soldering



Recommended peak temperature is over 245 °C. If peak temperature is below 245 °C, you may adjust the following parameters:

- Time length of peak temperature (longer)
- Time length of soldering (longer)
- Thickness of solder paste (thicker)

◆ Conditions of hand soldering

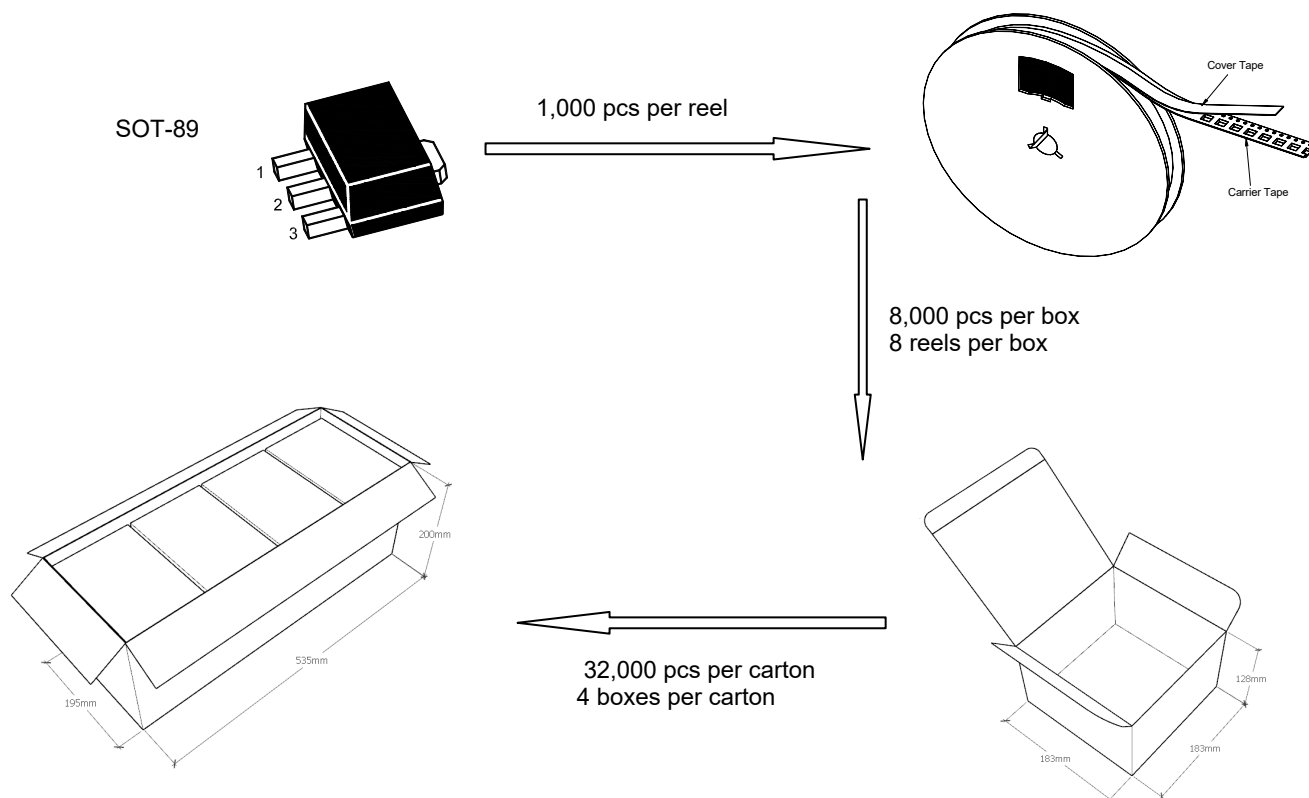
- Temperature: 370 °C
- Time: 3s max.
- Times: one time

◆ Storage conditions

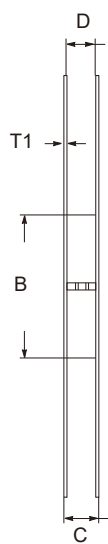
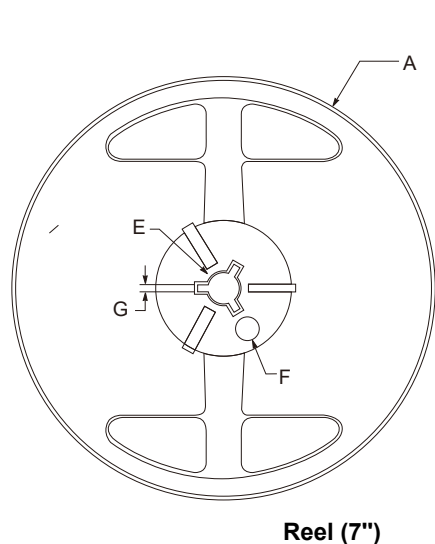
- **Temperature**
5 to 40 °C
- **Humidity**
30 to 80% RH
- **Recommended period**
One year after manufacturing

Package Specifications

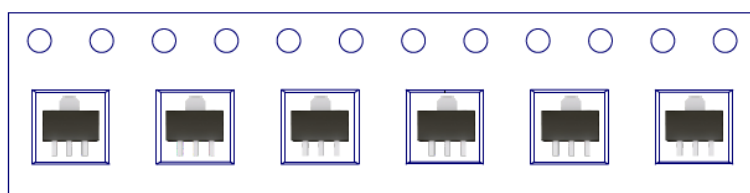
- The method of packaging (1,000PCS/Reel&7inches)



◆ Embossed tape and reel data

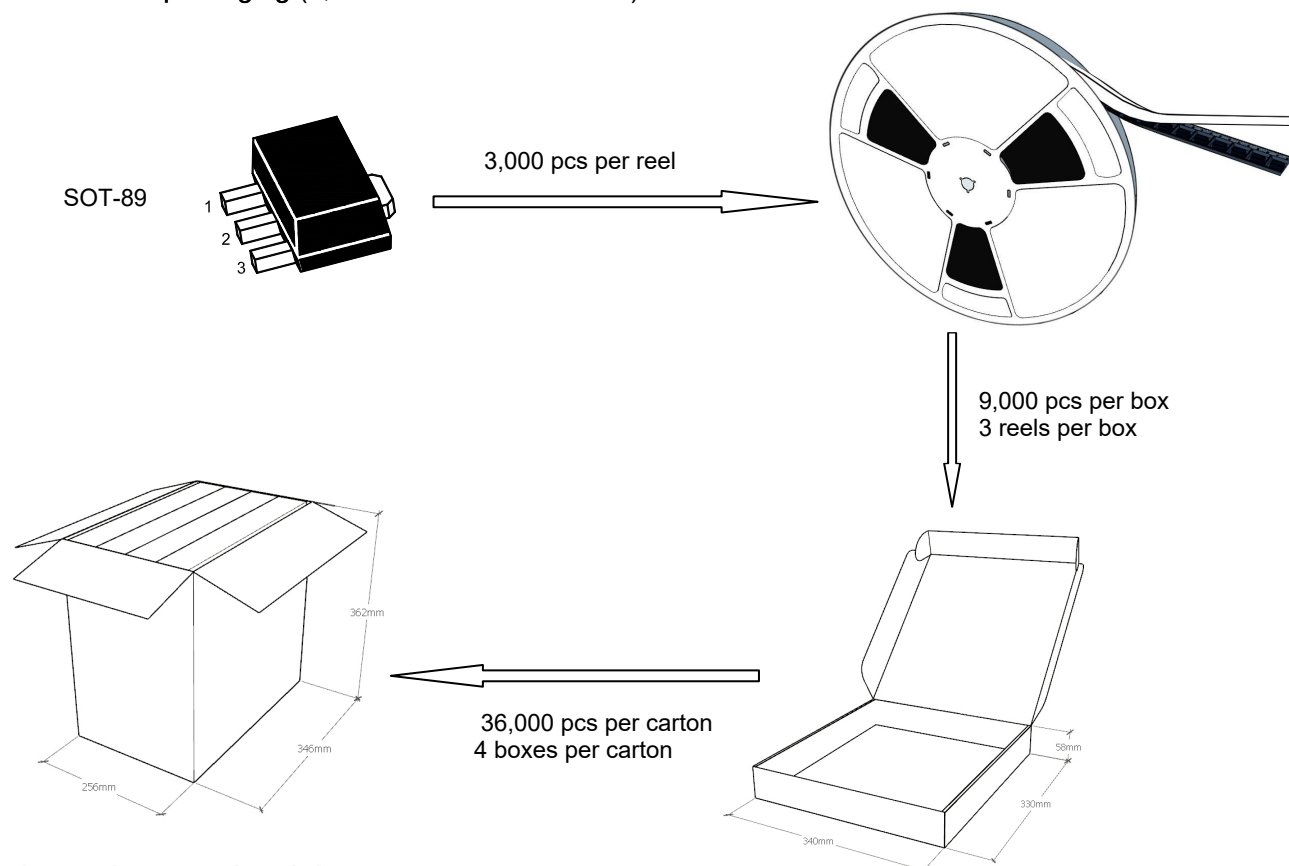


symbol	Value(unit:mm)
A	$\Phi 179 \pm 1$
B	60.5 ± 0.2
C	15.3 ± 0.3
D	$12.5 \sim 13.7$
E	$\Phi 13.5 \pm 0.2$
F	$\Phi 10.0 \pm 0.2$
G	2.7 ± 0.2
T1	1.0 ± 0.2

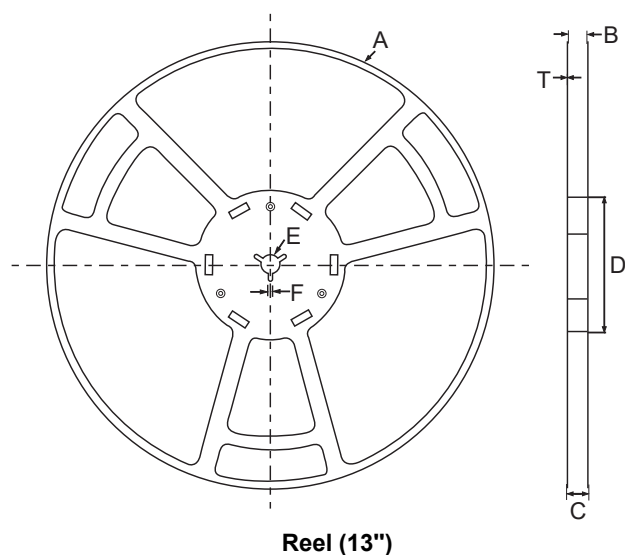


Package Specifications

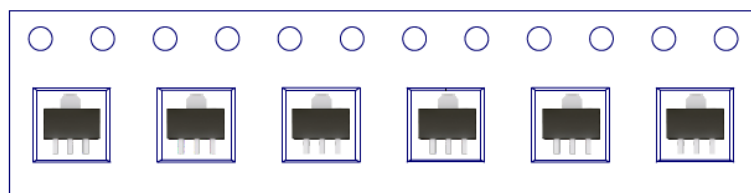
- The method of packaging (3,000PCS/Reel&13inches)



◆ Embossed tape and reel data




symbol	Value(unit:mm)
A	$\Phi 330 \pm 1$
B	12.7 ± 0.5
C	16.5 ± 0.3
D	$\Phi 99.5 \pm 0.5$
E	$\Phi 13.6 \pm 0.3$
F	2.8 ± 0.3
T1	1.9 ± 0.2



Contact Information

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For additional information, please contact your local Sales Representative.

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Product Specification Statement

The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. TANI shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and TANI assumes no responsibility for the application of the product. TANI strives to provide accurate and up-to-date information to the best of our ability. However, due to technical, human, or other reasons, TANI cannot guarantee that the information provided in the product specification is entirely accurate and error-free. TANI shall not be held responsible for any losses or damages resulting from the use or reliance on any information in these product specifications.

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Users are advised to pay attention to the parameter limit values specified in the product specification and maintain a certain margin in design or application to ensure that the product does not exceed the parameter limit values defined in the product specification. This precaution should be taken to avoid exceeding one or more of the limit values, which may result in permanent irreversible damage to the product, ultimately affecting the quality and reliability of the system or equipment.

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