

2SB772SG

Features

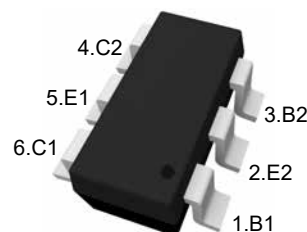
- High current
- Low saturation voltage
- Complement to 2SD882SG

Applications

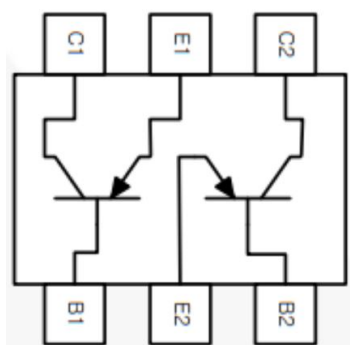
- Voltage regulation
- Relay driver
- Generic switch
- Audio power amplifier
- DC-DC converter

Double Silicon PNP Transistor

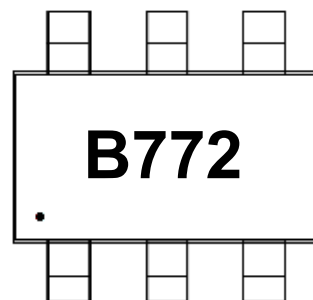
SOT-23-6



Equivalent Circuit



Marking Code



Device summary

Order code	Marking	Package	Packing
2SB772SG	B772	SOT-23-6	Tube

Absolute Maximum Ratings (T_A=25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-base voltage (I _E = 0)	-60	V
V _{CEO}	Collector-emitter voltage (I _B = 0)	-30	V
V _{EBO}	Collector-base voltage (I _C = 0)	-5	V
I _C	Collector current	-3	A
I _{CM}	Collector peak current (t _p < 5ms)	-6	A
I _B	Base current	-1	A
I _{BM}	Base peak current (t _p < 5ms)	-2	A
P _{TOT}	Total dissipation at T _c = 25°C	12.5	W
T _{STG}	Storage temperature	-65 to 150	°C
T _J	Max. operating junction temperature	150	°C

Thermal data

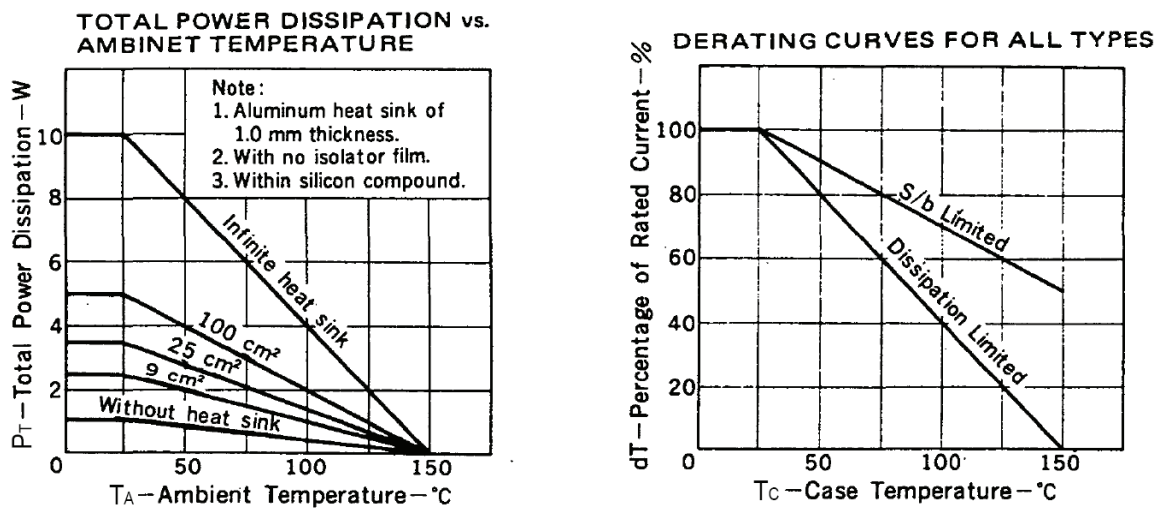
Symbol	Parameter	Value	Unit
$R_{thJ-case}$	Thermal resistance junction-case max	10	°C/W

Electrical Characteristics (TA=25°C)

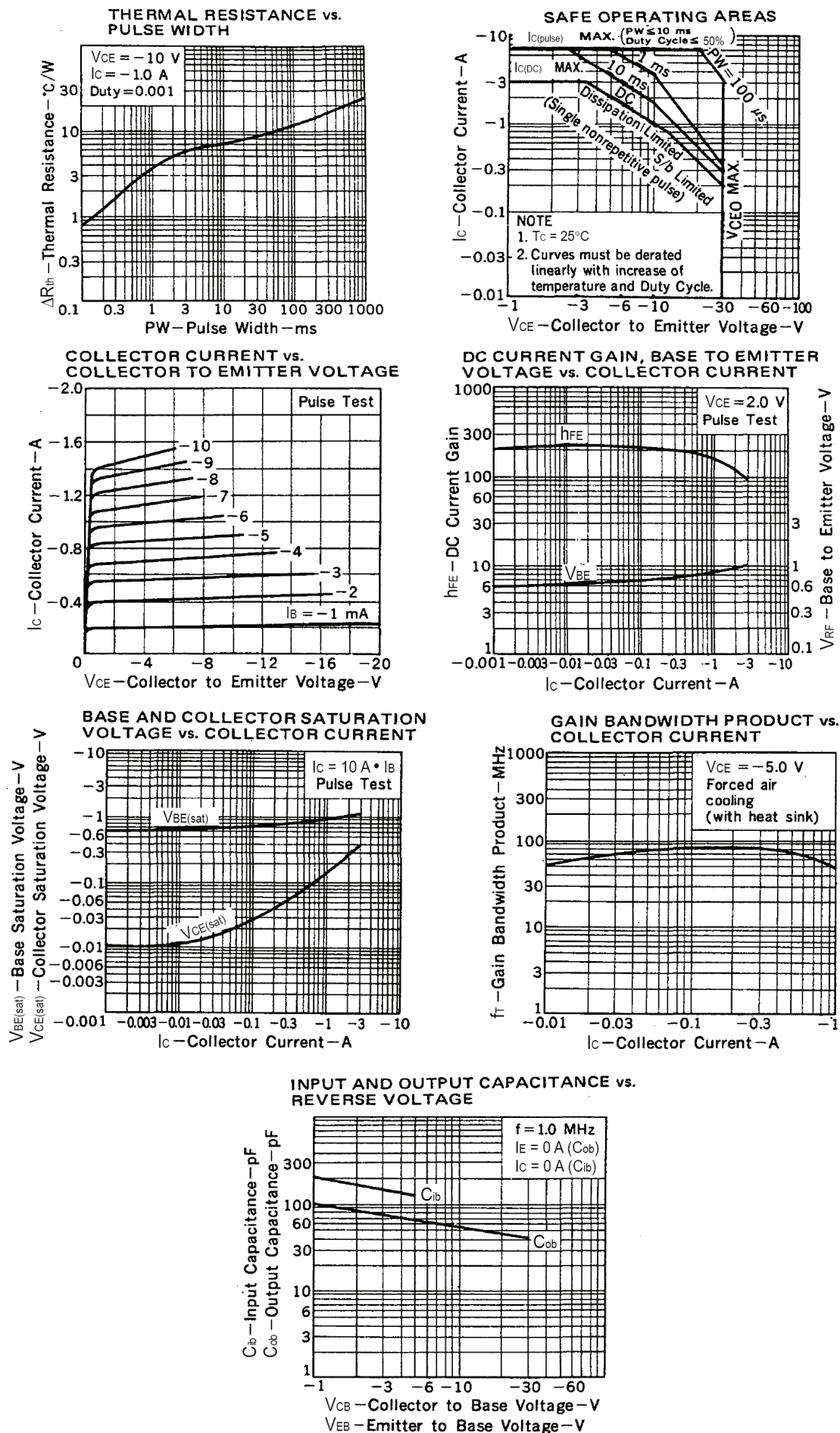
Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector cut-off current ($V_{BE} = 0$)	$V_{CE} = -60\text{ V}$			-10	μA
I_{CEO}	Collector cut-off current ($I_B = 0$)	$V_{CE} = -30\text{ V}$			-100	μA
I_{EBO}	Emitter cut-off current ($I_C = 0$)	$V_{EB} = -5\text{ V}$			-10	μA
$V_{(BR)CEO(1)}$	Collector-emitter breakdown voltage ($I_B = 0$)	$I_C = -10\text{ mA}$	-30			V
$V_{(BR)CBO}$	Collector-base breakdown voltage ($I_E = 0$)	$I_C = -100\text{ }\mu\text{A}$	-60			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage ($I_C = 0$)	$I_E = -100\text{ }\mu\text{A}$	-5			V
$V_{CE(sat)(1)}$	Collector-emitter saturation voltage	$I_C = -1\text{ A}$ $I_B = -50\text{ mA}$ $I_C = -2\text{ A}$ $I_B = -100\text{ mA}$ $I_C = -3\text{ A}$ $I_B = -150\text{ mA}$			-0.4 -0.7 -1.1	V V V
$V_{BE(sat)(1)}$	Base-emitter saturation voltage	$I_C = -2\text{ A}$ $I_B = -100\text{ mA}$			-1.2	V
h_{FE}	DC current gain	$I_C = -100\text{ mA}$ $V_{CE} = -2\text{ V}$ $I_C = -1\text{ A}$ $V_{CE} = -2\text{ V}$ $I_C = -3\text{ A}$ $V_{CE} = -2\text{ V}$	100 80 30		300	
f_T	Transition frequency	$I_C = -0.1$ $V_{CE} = -10\text{ V}$		100		MHz

1. Pulsed duration = 300 ms, duty cycle ≤1.5%.

Typical Characteristic Curves



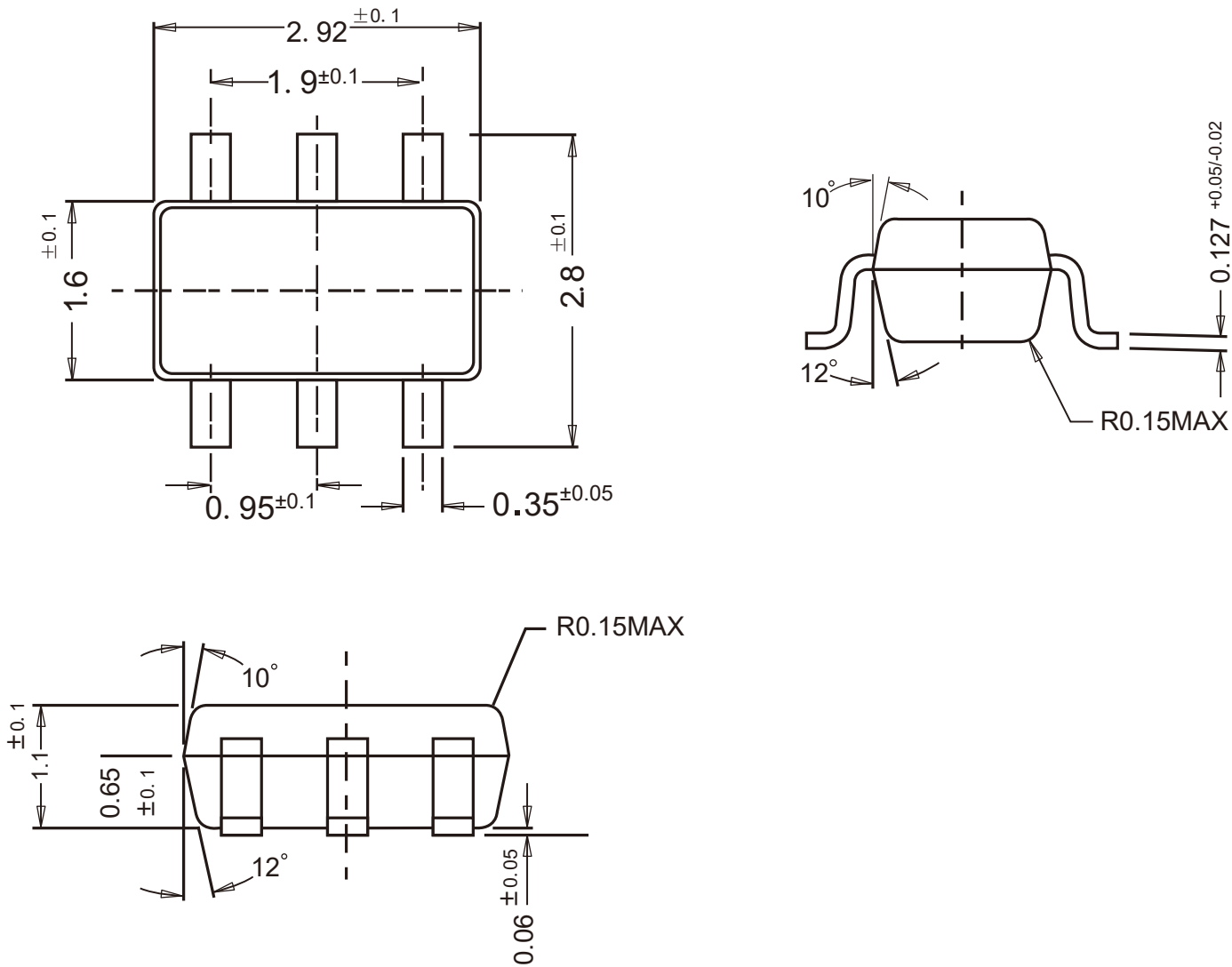
Typical Characteristic Curves



Package Outline

SOT-23-6

Dimensions in mm

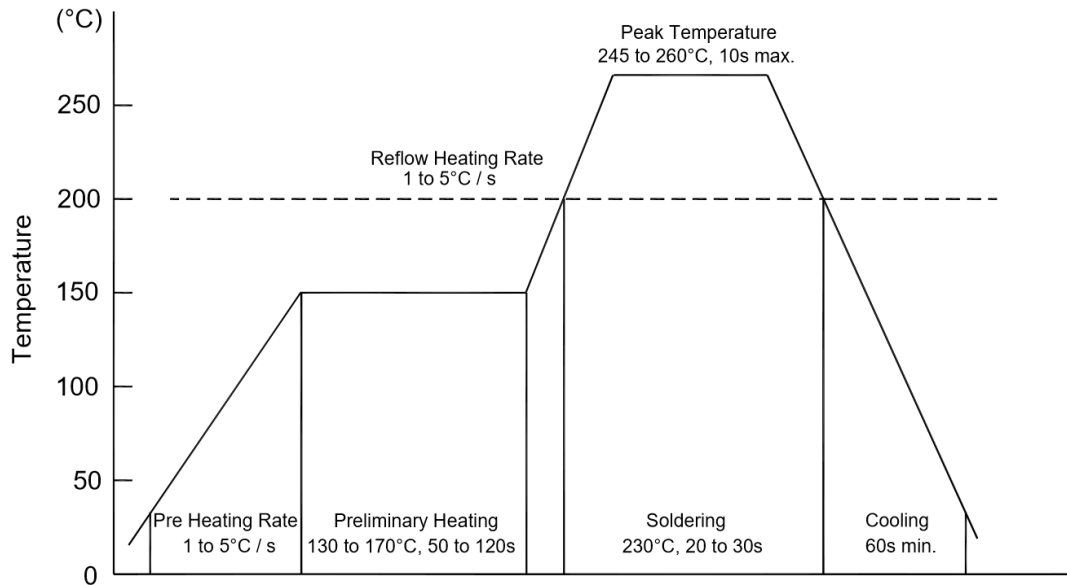


Ordering Information

Device	Package	Shipping
2SB772SG	SOT-23-6	3,000PCS/Reel&7inches

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

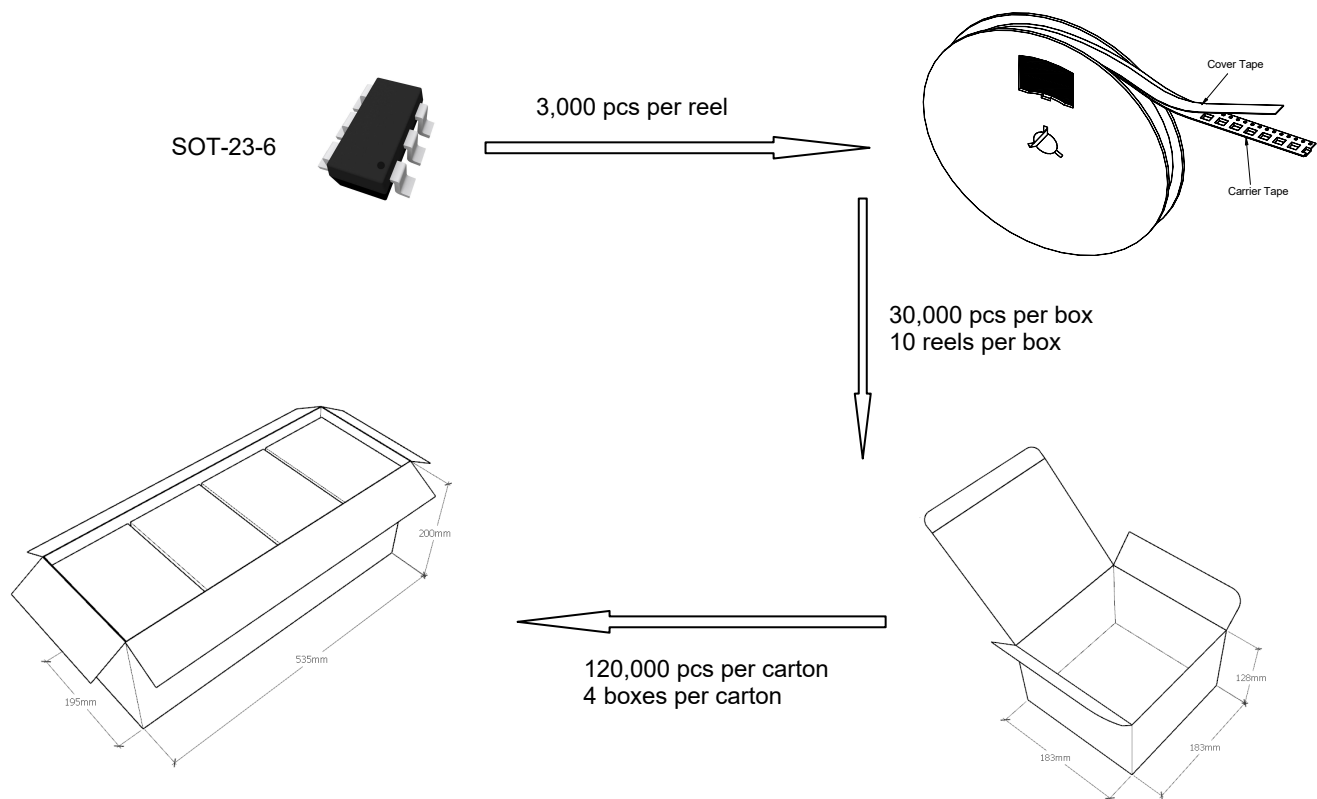
- Temperature: 370 °C
- Time: 3s max.
- Times: one time

◆ Storage conditions

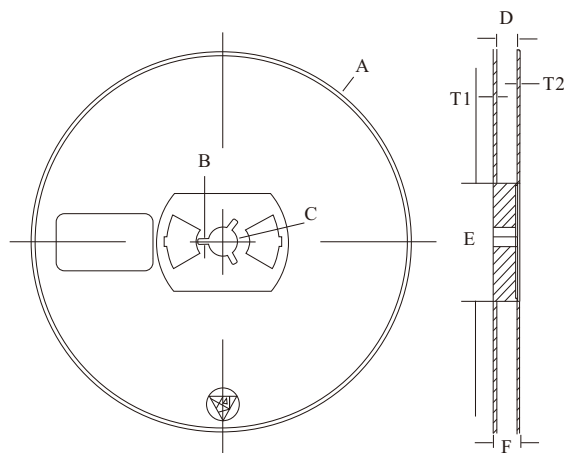
- **Temperature**
5 to 40 °C
- **Humidity**
30 to 80% RH
- **Recommended period**
One year after manufacturing

Package Specifications

- The method of packaging

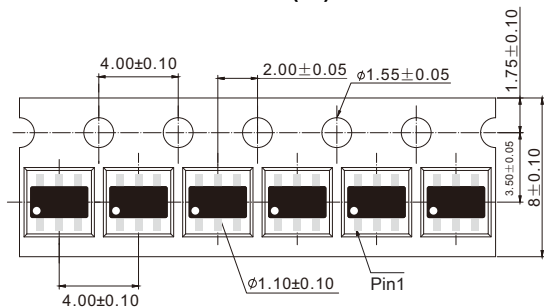


◆ Embossed tape and reel data



Symbol	Value (unit: mm)
A	Ø 177.8±1
B	2.7±0.2
C	Ø 13.5±0.2
E	Ø 54.5±0.2
F	12.3±0.3
D	9.6+2/-0.3
T1	1.0±0.2
T2	1.2±0.2

Reel (7")



Tape (8mm)

Contact Information

TANI website: <http://www.tanisemi.com> Email: tani@tanisemi.com For additional information, please contact your local Sales Representative.



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