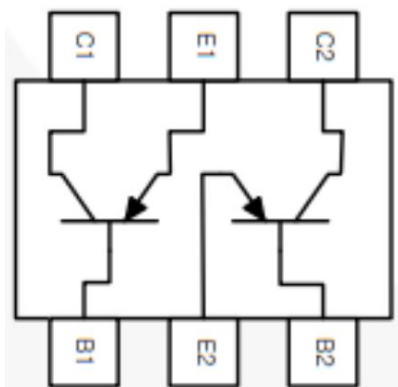


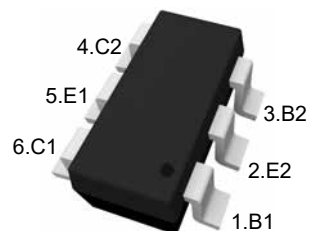
Features

- For switching and amplifier applications

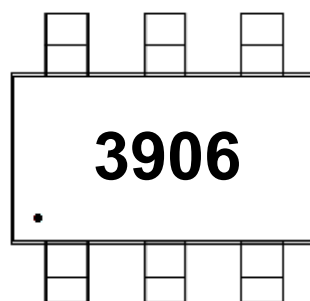
Equivalent Circuit



SOT-23-6



Marking Code



Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	40	V
Emitter Base Voltage	$-V_{EBO}$	6	V
Collector Current	$-I_C$	200	mA
Maximum Power Dissipation	P_D	1	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

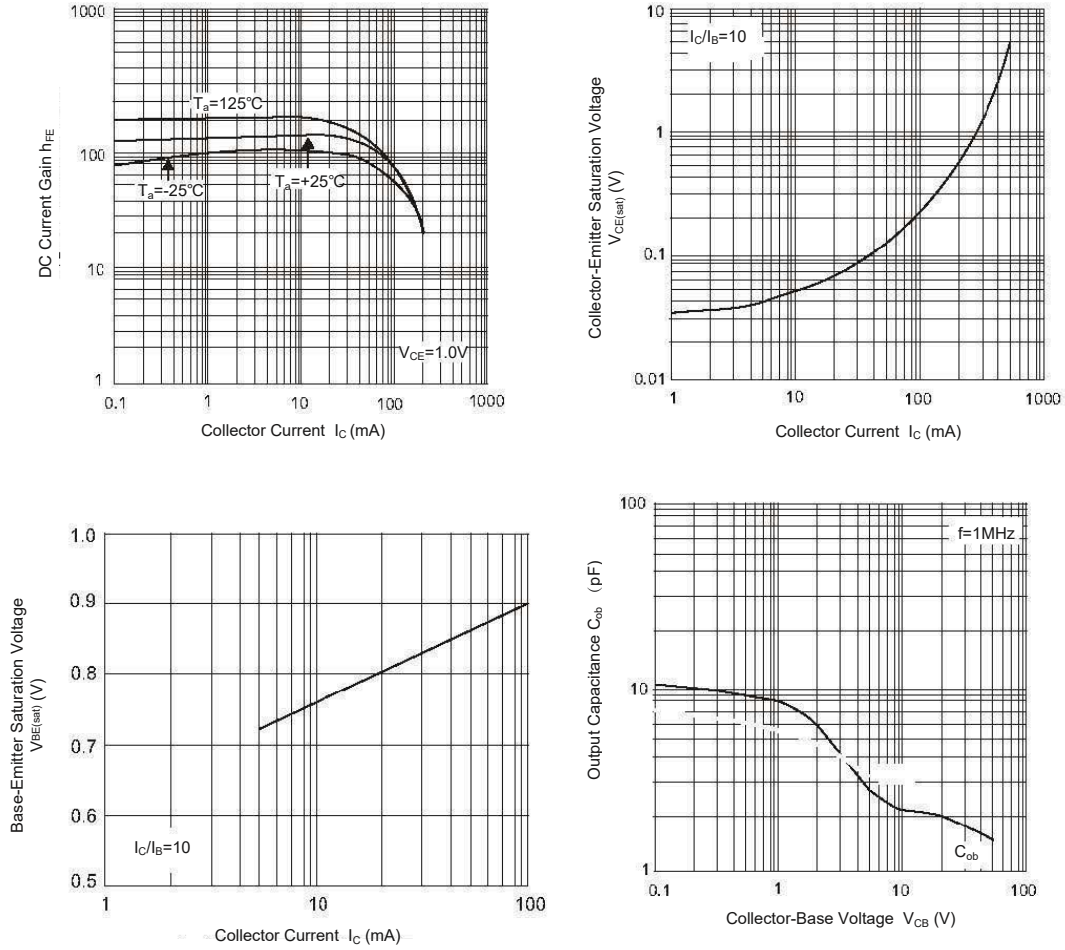


Electrical Characteristics (T_A=25°C)

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at V _{CE} = -1 V, I _C = -0.1 mA at V _{CE} = -1 V, I _C = -1 mA at V _{CE} = -1 V, I _C = -10 mA at V _{CE} = -1 V, I _C = -50 mA at V _{CE} = -1 V, I _C = -100 mA	H _{FE}	60 80 100 60 30	-- -- 300 -- --	--
Collector Base Cutoff Current at V _{CB} = -30V	-I _{CBO}	--	.50	nA
Emitter Base Cutoff Current at V _{EB} = -6 V	-I _{EBO}	--	50	nA
Collector Base Breakdown Voltage at I _C = -10 μA	-V _{(BR)CBO}	40	--	V
Collector Emitter Breakdown Voltage at I _C = -1 mA	-V _{(BR)CEO}	40	--	V
Emitter Base Breakdown Voltage at I _E = -10 μA	-V _{(BR)EBO}	6	--	V
Collector Emitter Saturation Voltage at I _C = -10 mA, I _B = -1 mA at I _C = -50 mA, I _B = -5 mA	-V _{CE(sat)}	-- --	0.25 0.4	V
Base Emitter Saturation Voltage at I _C = -10 mA, I _B = -1 mA at I _C = -50 mA, I _B = -5 mA	-V _{BE(sat)}	0.65 --	0.85 0.95	V
Transition Frequency at V _{CE} = -20 V, I _C = -10 mA, f = 100 MHz	F _T	250	--	MHz
Output Capacitance at V _{CB} = -5 V, I _E = 0, f = 1 MHz	C _{ob}	--	4.5	pF



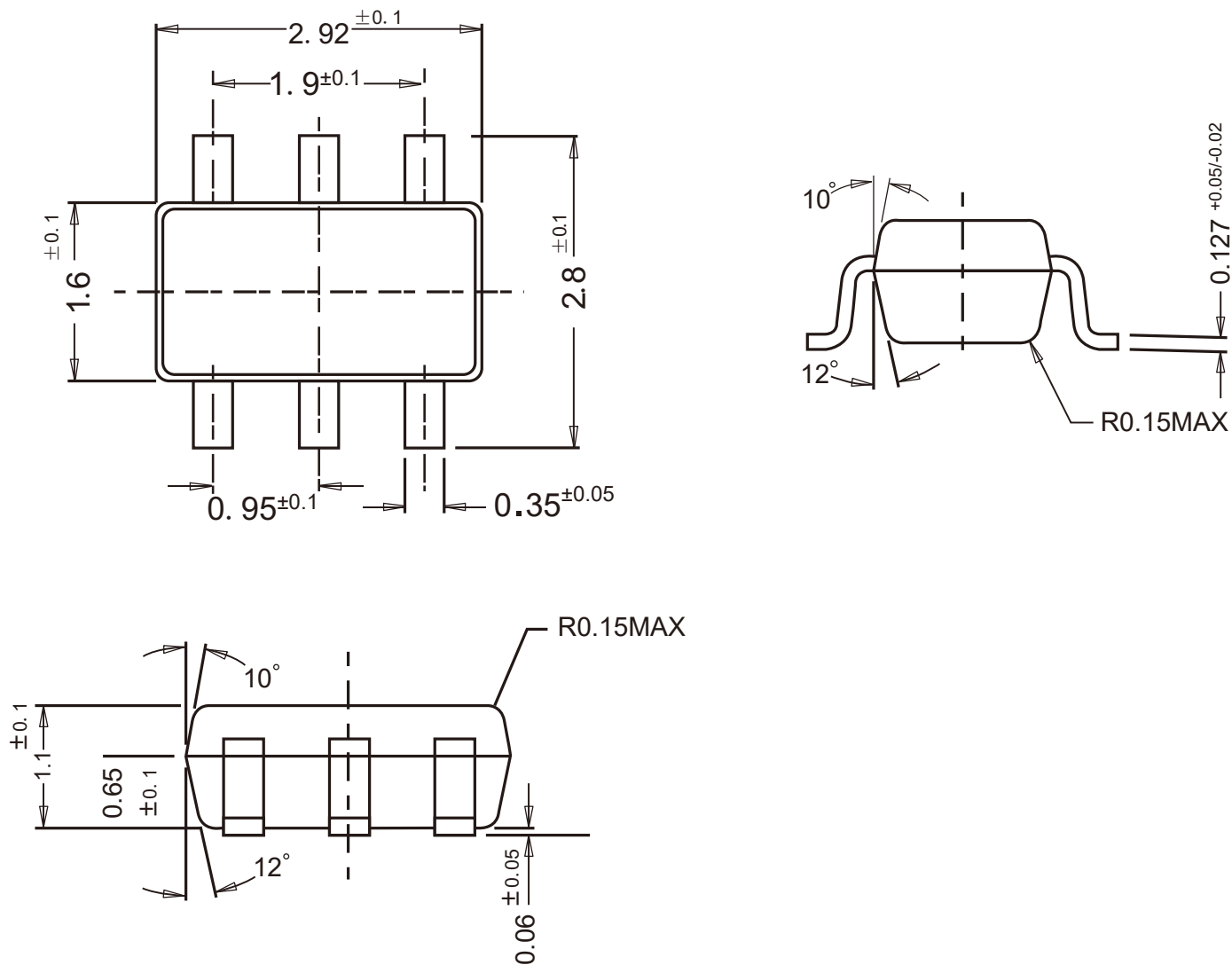
Typical Characteristic Curves



Package Outline

SOT-23-6

Dimensions in mm

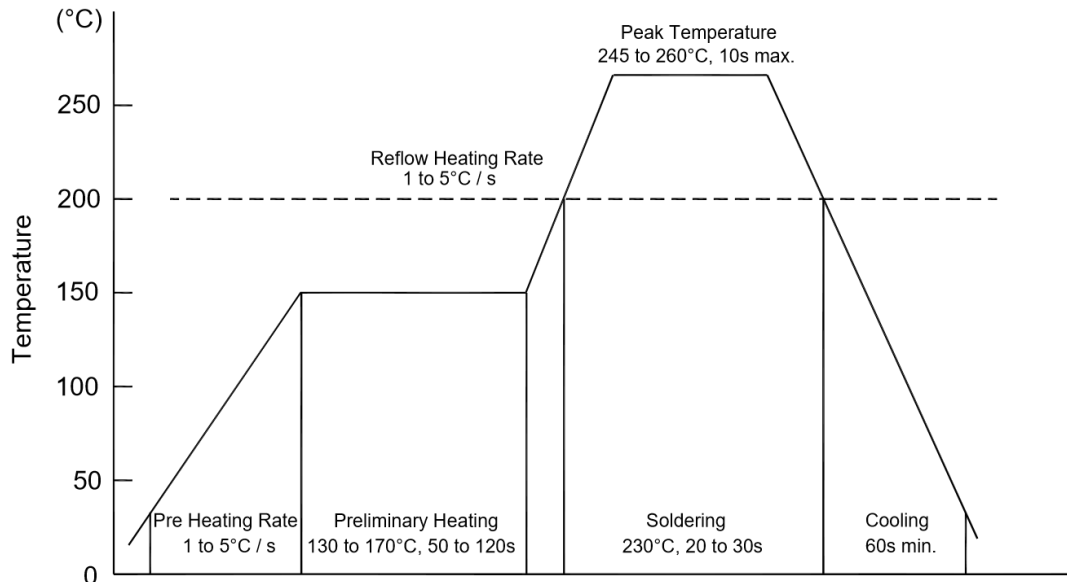


Ordering Information

Device	Package	Shipping
MMDT3906SG	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

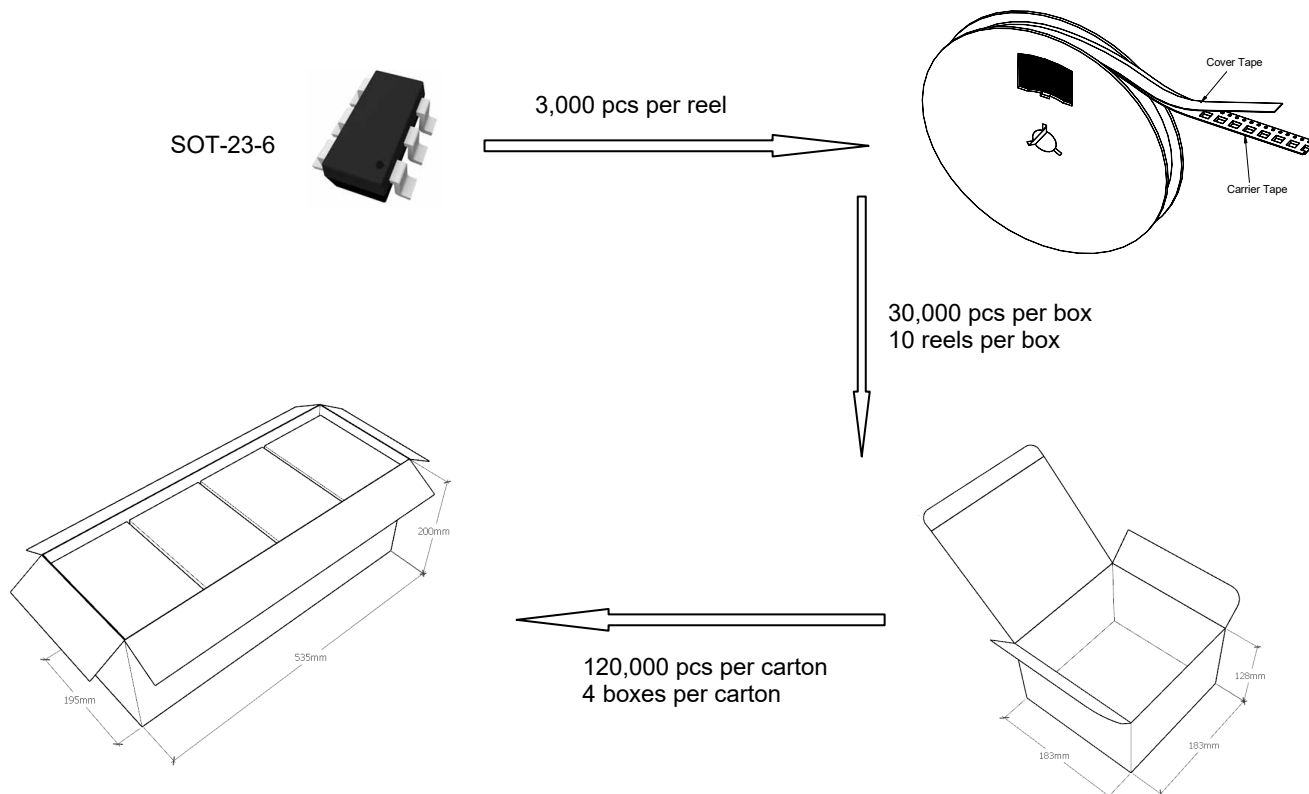
- Temperature: 370 °C
- Time: 3s max.
- Times: one time

◆ Storage conditions

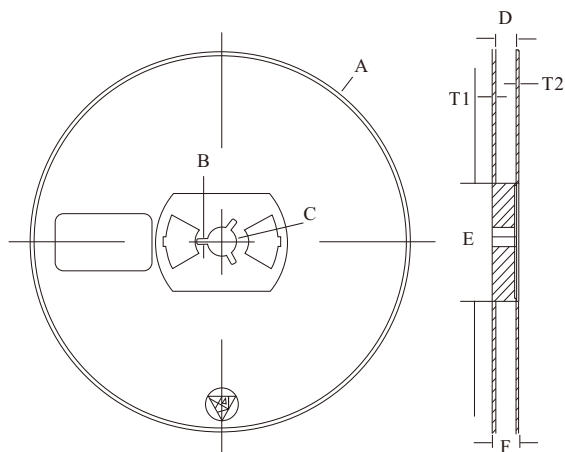
- **Temperature**
5 to 40 °C
- **Humidity**
30 to 80% RH
- **Recommended period**
One year after manufacturing

Package Specifications

- The method of packaging

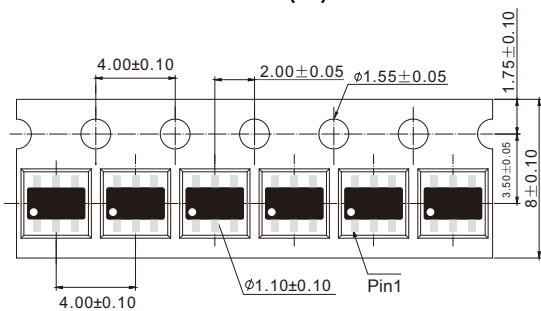


◆ Embossed tape and reel data



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)

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [Pingjingsemi manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)
[NTE195A](#) [NTE92](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [SP000011176](#) [2N2907A](#) [2N3904-](#)
[NS](#) [2N5769](#) [2SC2412KT146S](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#) [MJE340](#) [Jantx2N5416](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#)
[CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [MMST8098T146](#) [UMX21NTR](#) [MCH6102-TL-E](#) [NJL0302DG](#) [30A02MH-TL-E](#) [NTE13](#) [NTE26](#)
[NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [STX83003-AP](#) [JANTX2N2920L](#) [JANSR2N2222AUB](#) [CMLT3946EG TR](#) [2SA1371D-AE](#)