

DATA SHEET

**ELECTROSTATIC DISCHARGE
PROTECTION DEVICES**

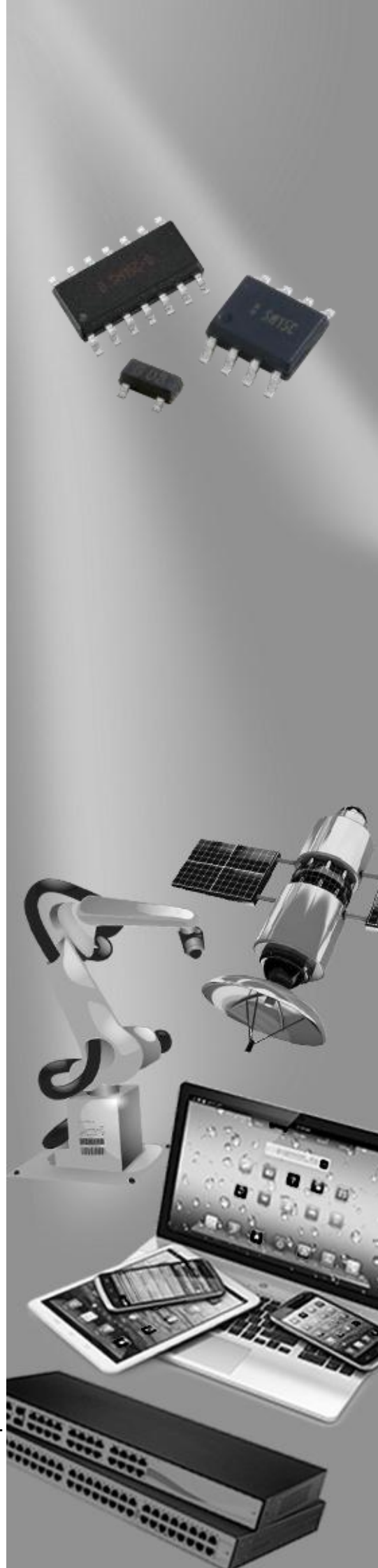
INDUSTRIAL / CONSUMER

LBT23C24L02D-AT

RoHS compliant & Halogen free



Product specification— December 12, 2025 V.1



Electrostatic Discharged Protection Devices (ESD) Data Sheet

Features

- Common anode ESD protection
- Surface mount package.
- High component density.
- IEC61000-4-2 $\pm 30\text{kV}$ (contact) $\pm 30\text{kV}$ (air)
- AEC-Q101 Qualified
- Marking: E24

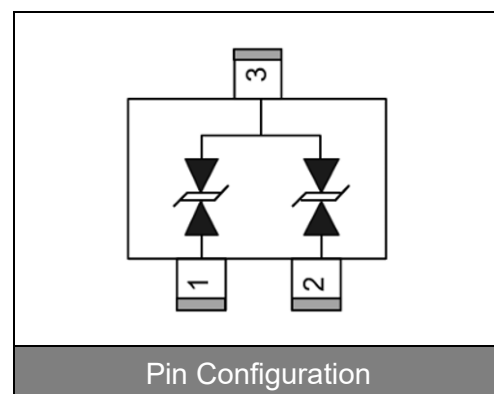


Contact : $\pm 30\text{kV}$
Air : $\pm 30\text{kV}$



Mechanical data

- Case: SOT-23 Standard package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.



Pin Configuration

Maximum Ratings

Rating	Symbol	Value	Unit
Peak Pulse Power ($t_p=8/20\mu\text{s}$)	P_{PP}	138	W
ESD voltage (Contact discharge)	V_{ESD}	± 30	kV
ESD voltage (Air discharge)		± 30	
Operating temperature range	T_J	$-55\sim+150$	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	$-55\sim+150$	$^{\circ}\text{C}$

Electrical Characteristics ($T_J=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	V_{RWM}				24	V
Reverse breakdown voltage	V_{BR}	$I_T=1\text{mA}$	26.5			V
Reverse leakage current	I_R	$V_{RWM}=24\text{V}, T=25^\circ\text{C}$			0.1	μA
Clamping voltage	V_C	$I_{PP}=3\text{A}, t_p=8/20\mu\text{s}$		46		V
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$			3	A
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		20		pF

Typical Characteristics Curves

Figure 1. 8/20 μs Peak Pulse Current Waveform ACC.
IEC 61000-4-5

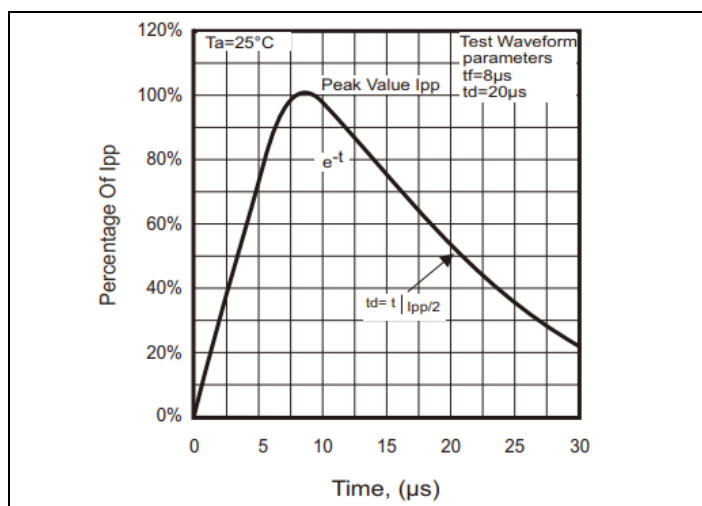


Figure 2. Power Rating Derating Curve

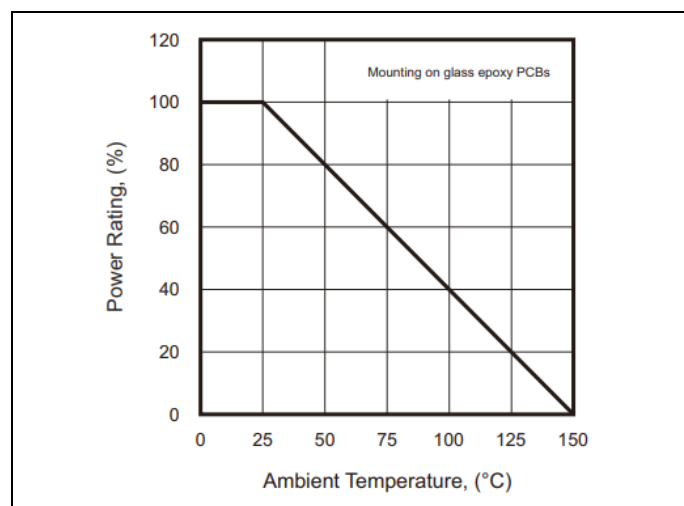


Figure 3. Capacitance Between Terminals
Characteristics

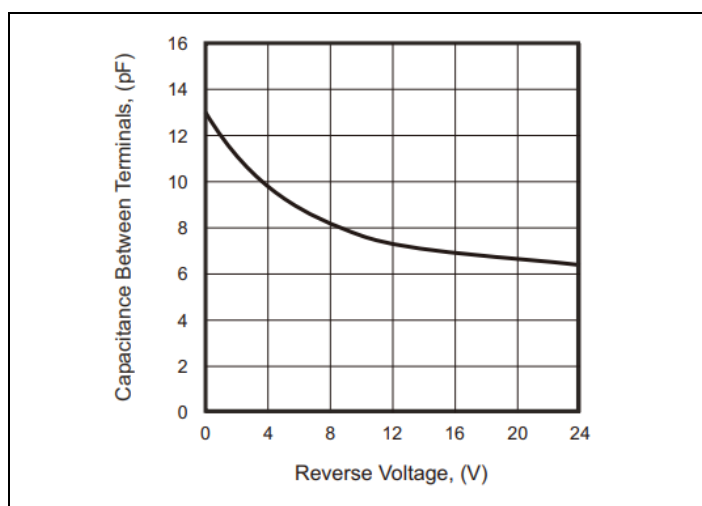
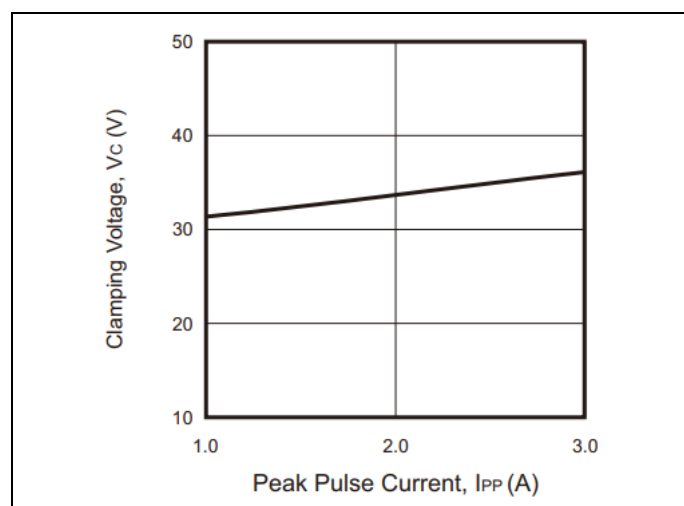
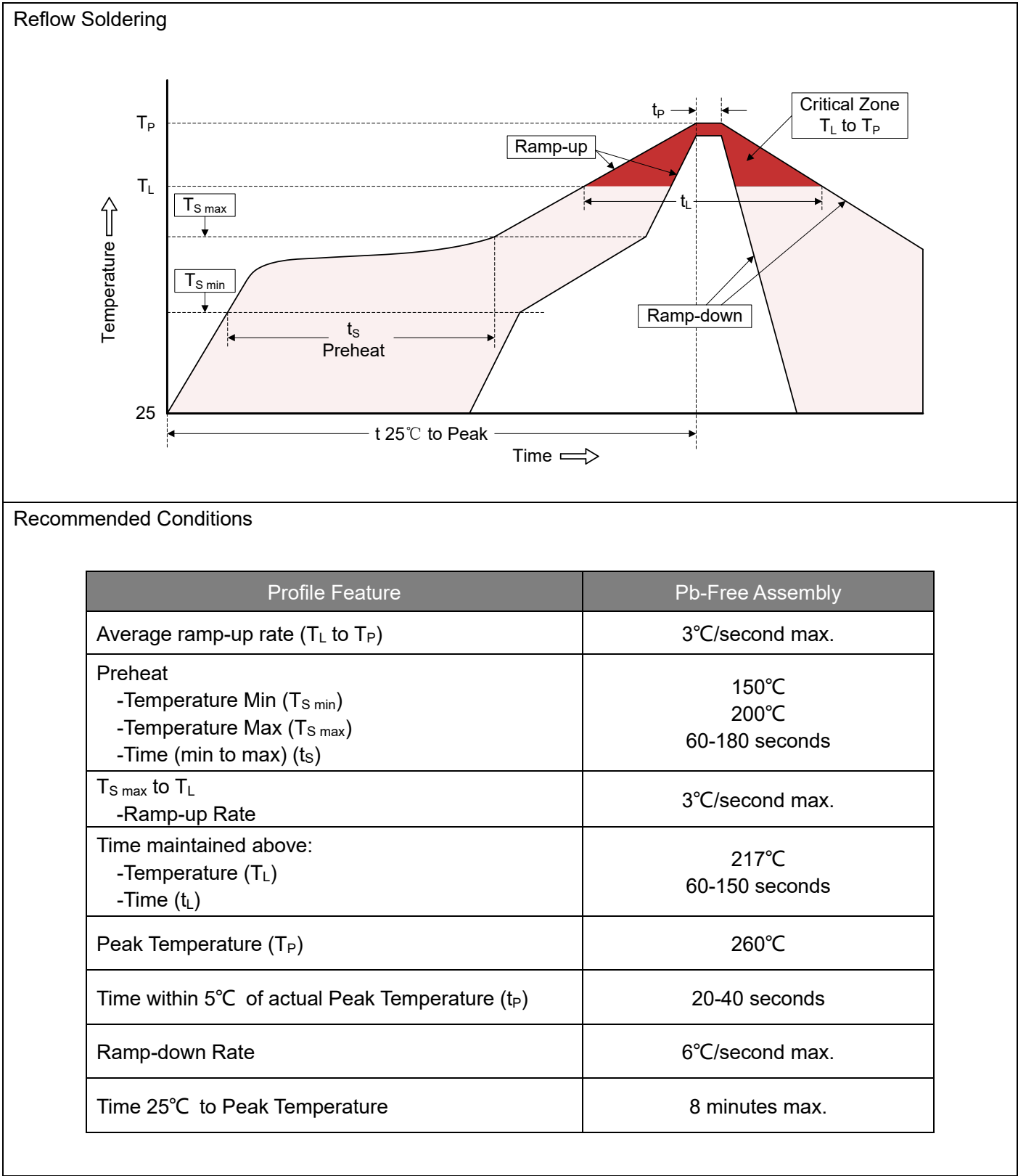


Figure 4. Clamping Voltage Vs. Peak Pulse Current



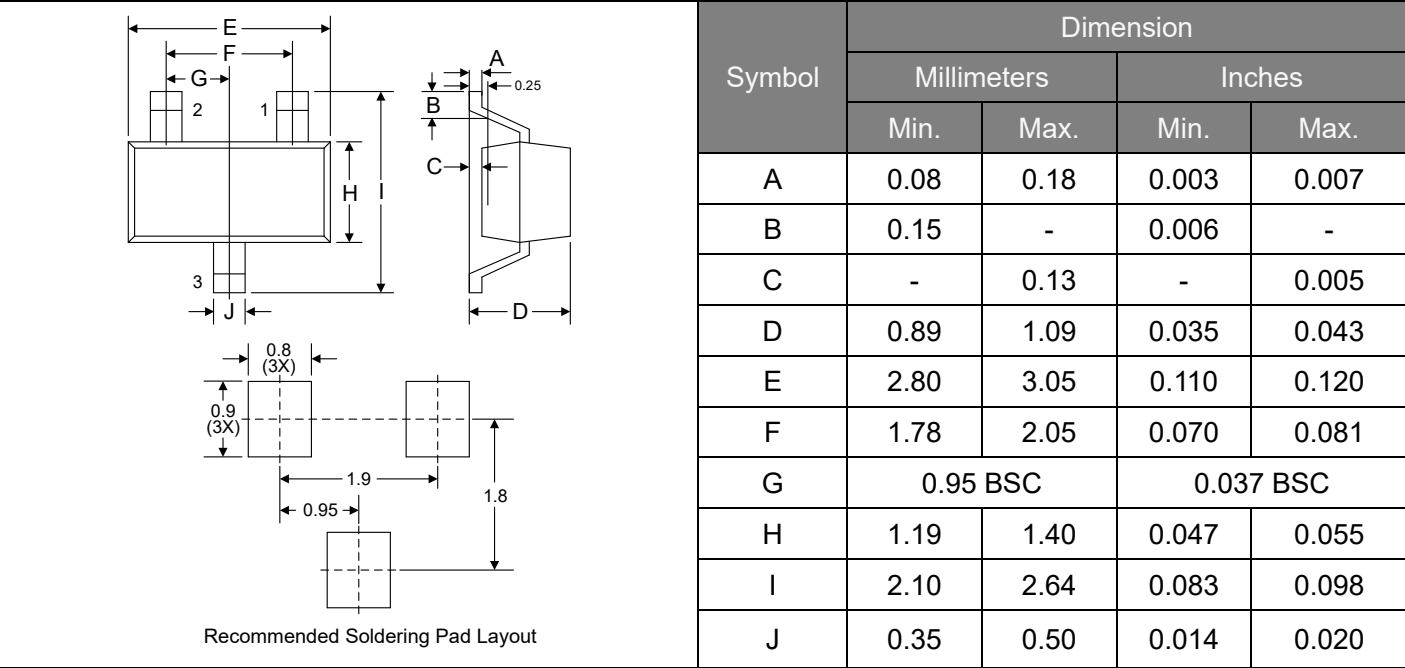
Recommended Soldering Conditions



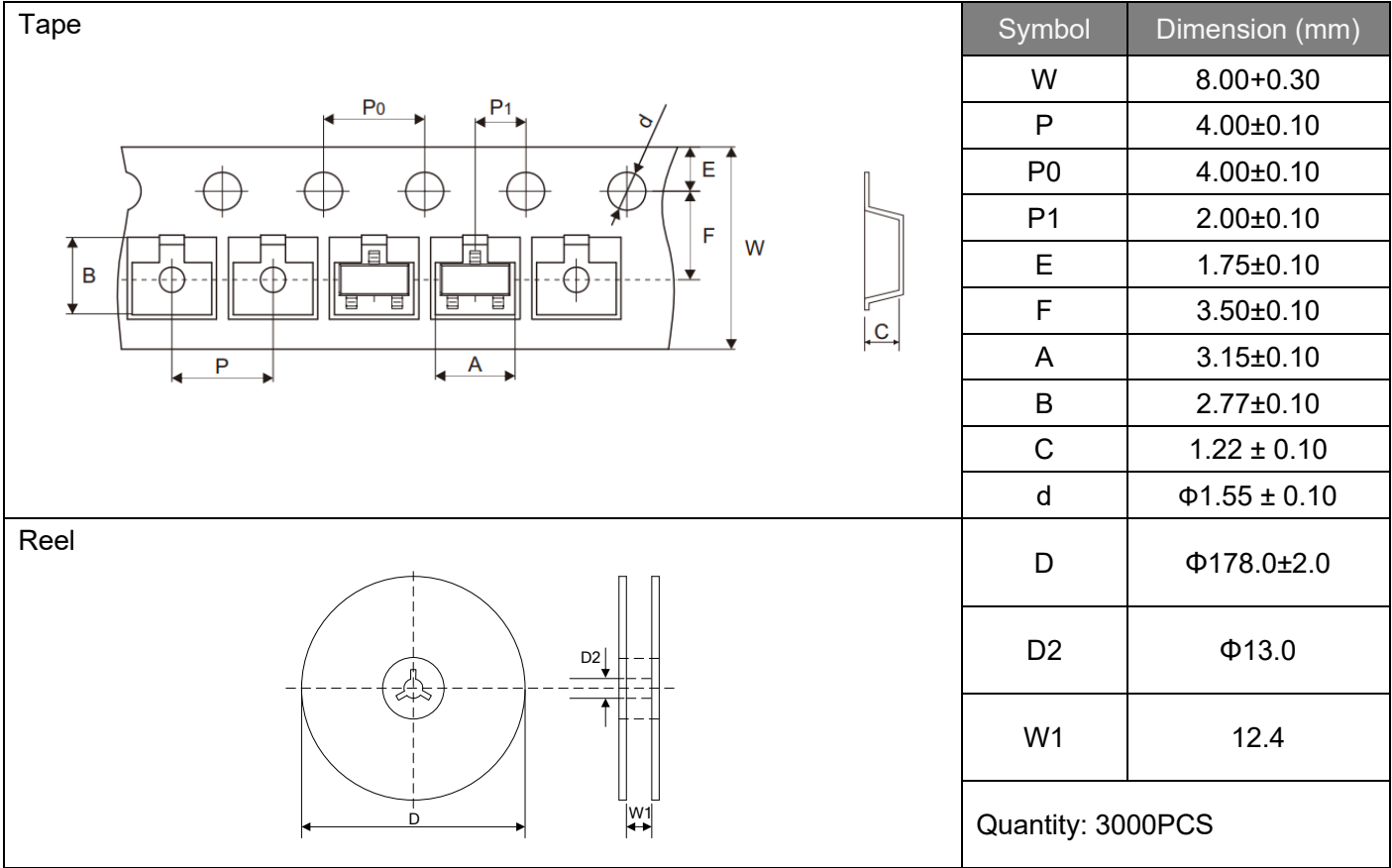
Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

Dimensions (SOT-23)



Packaging



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