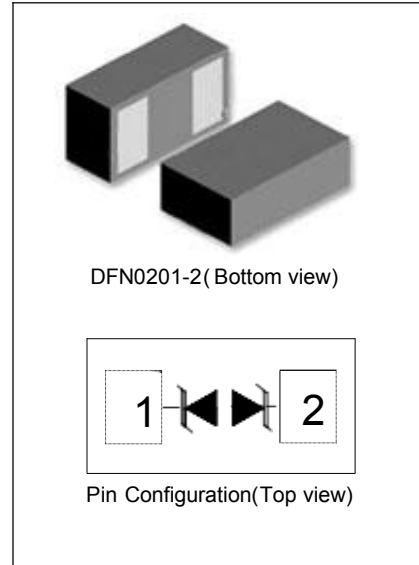


APPLICATIONS

Serial ATA.
Desktops, Servers and Notebooks.
Cellular Phones.
MDDI Ports.
USB2.0 Power and Data Line Protection.
Display Ports
Digital Visual Interfaces (DVI).

FEATURES

Transient protection for high-speed data lines
IEC 61000-4-2 (ESD) $\pm 25\text{kV}$ (Air)
IEC 61000-4-2(ESD) $\pm 15\text{kV}$ (Contact)



ORDERING INFORMATION

Device: JCS0201V05C005
Package: DFN0201-2
Marking: According to the physical
Material: Halogen free
Packing: Tape & Reel
Quantity per reel: 15,000pcs

MACHANICAL DATA

DFN0201-2 Package
Flammability Rating: UL 94V-0
Packaging: Tape and Reel
High temperature soldering guaranted: $260^{\circ}\text{C}/10\text{s}$
Reel size: 7 inch

Absolute maximum ratings(TA=25℃, RH=45%-75%,unless otherwise noted)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 25 ± 15	kV
Lead soldering temperature	T_L	260 (10 sec.)	℃
Operating junction temperature range	T_J	-55 to +125	℃
Storage temperature range	T_{STG}	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (TA=25℃)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				5	V
Reverse breakdown voltage	V_{BR}	$I_R = 1mA$	6.3			V
Reverse leakage current	I_R	$V_{RWM} = 5V$		0.01	0.10	μA
Clamping voltage	V_C	IEC61000-4-28KV contact discharge		35		V
Junction capacitance	C_J	$V_{RWM} = 0V$, $f = 1MHz$		0.05		pF

Note:

- 1 Trigger and clamping voltage are measured per IEC 61000-4-2, 8KV contact discharge method.
- 2 After reliability tests such as high temp storage, temp cycles, continuous ESD strike etc, the maximum leakage current is less than 10uA.

RATINGS AND V-I CHARACTERISTICS CURVES (TA=25°C ,unless otherwise noted)

FIG.1: V- I curve characteristics (Bi-directional)

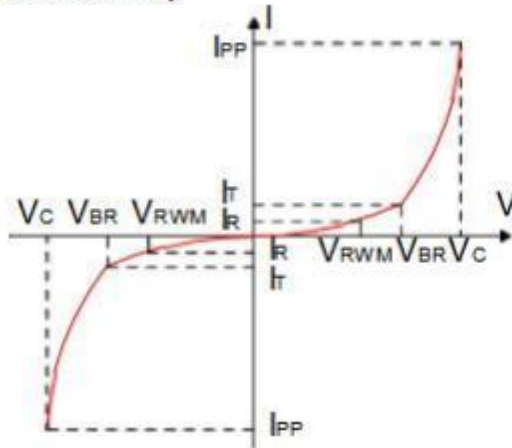


FIG.2: Pulse waveform (8/20 μ s)

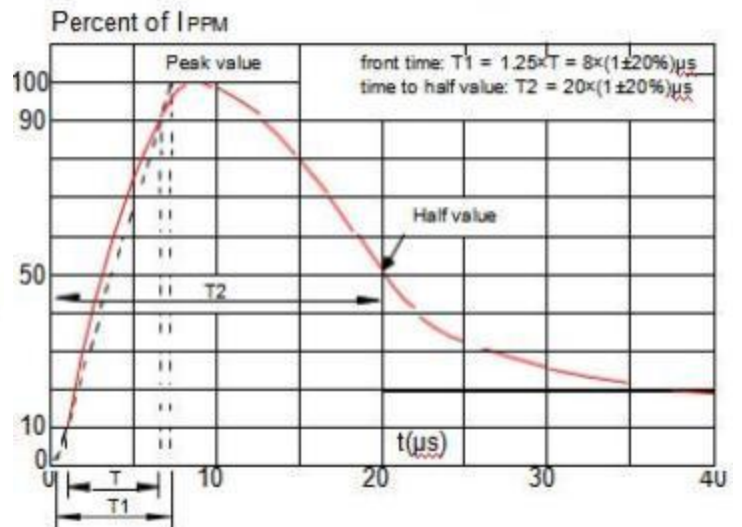


FIG.3: Pulse derating curve

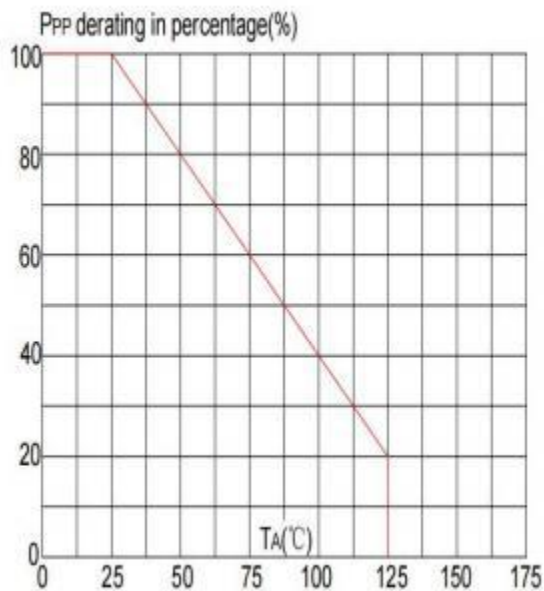
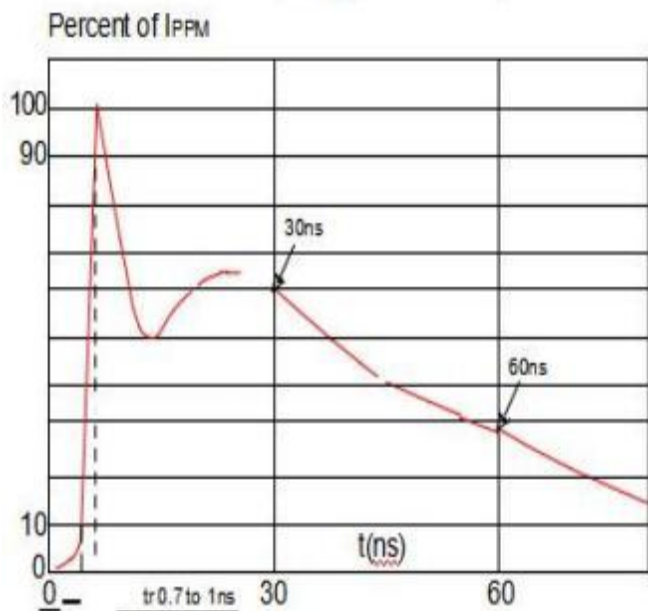
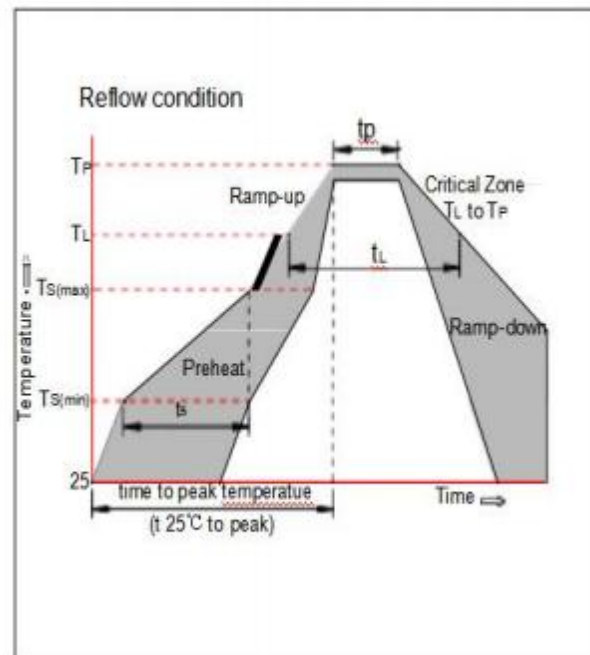


FIG.4: ESD clamping (20kV contact)

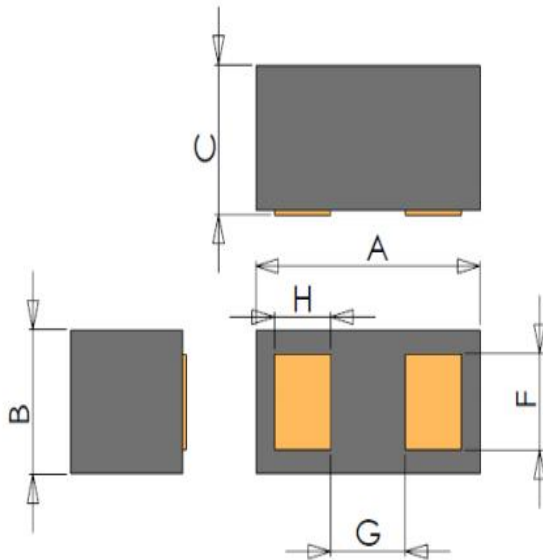


SOLDERING PARAMETERS

Reflow Condition		Pb-Free assembly (see figure at right)
Preheat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max ($T_{s(max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature (T_L) (Liquidus)	+217°C
	-Temperature (t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_P)		20-40secs.
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

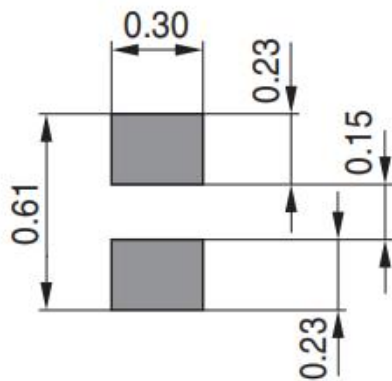


PACKAGE MECHANICAL DATA



Symbol	Dimension			Unit
	Min	Typ	Max	
A	0.55	0.60	0.65	mm
B	0.25	0.30	0.35	
C	0.25	0.30	0.35	
H	0.18	0.20	0.22	
F	0.255	0.275	0.295	
G	0.16	0.18	0.20	

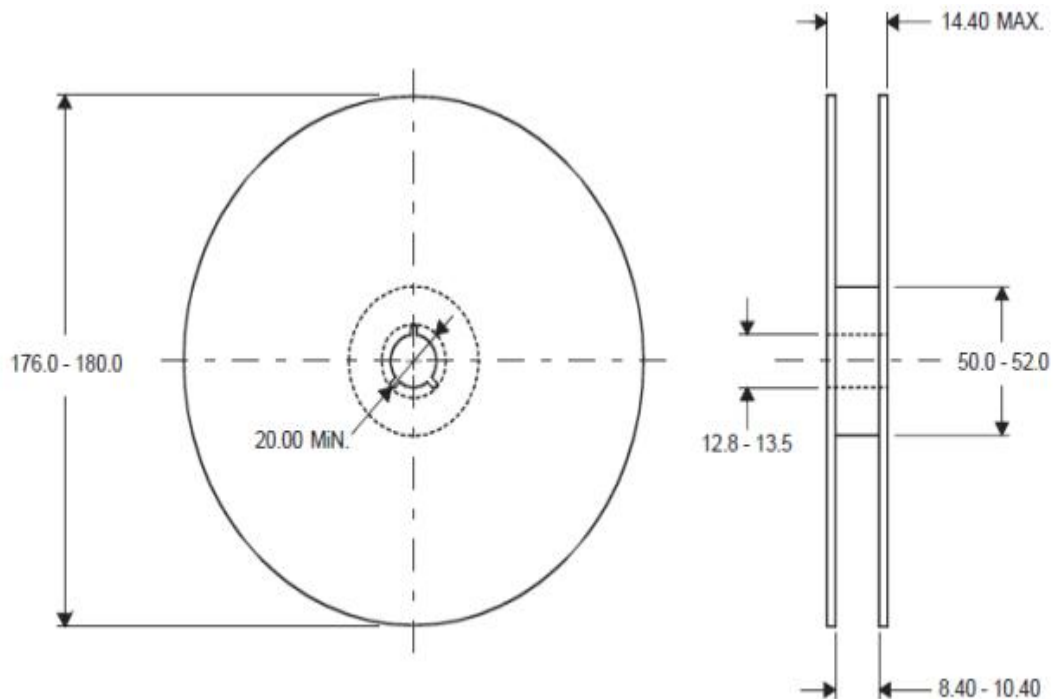
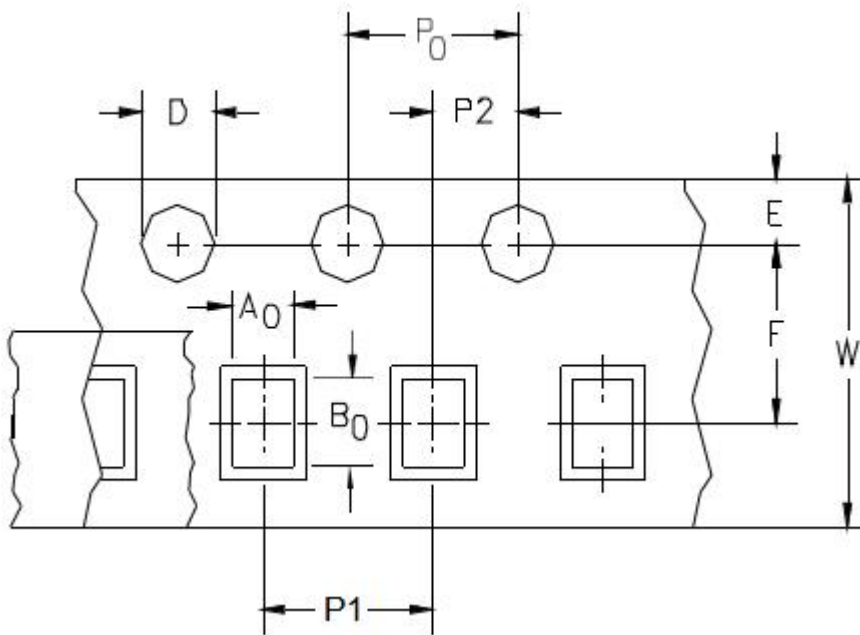
PAD Dimension



Dimensions in mm

TAPE AND REEL INFORMATION

Dimension	Typical	Unit
A0	0.38	mm
B0	0.68	
D	1.55	
P0	4.00	
P1	2.00	
P2	2.00	
E	1.75	
F	3.50	
W	8.00	



DIMENSIONS ARE: MILLIMETERS