BRESD3V3X1C2ZA

Rev.B Oct.-2021

DATA SHEET

/ Descriptions

DFN0603 装 ESD 保 护 二

DFN0603 Plastic Package 1-Line,Bi-directional , ESD Protection Diode.

/ Features

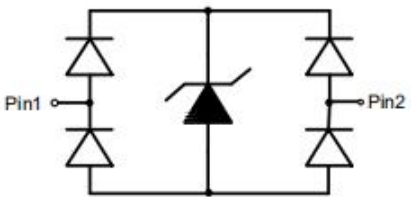
- Stand-off voltage: 5V Max.
- Transient protection for each line according to

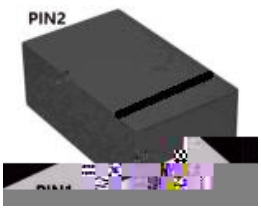
IEC61000-4-2(ESD): ±15kV (contact)

IEC61000-4-5(surge): 4A (8/20μs)

- Ultra-low capacitance: CJ = 0.4pF typ.
- Ultra-low leakage current: I_R < 1nA typ.
- Low clamping voltage: V_{CL} = 8.0V typ. @ IPP = 16A (TLP)
- Solid-state silicon technology
- HF Product

- USB 2.0 and USB 3.0
- HDMI 1.3, HDMI 1.4 and HDMI 2.0
- SATA and eSATA interface
- DVI
- IEEE 1394
- Portable Electronics and Notebooks





/ h_{FE} Classifications & Marking

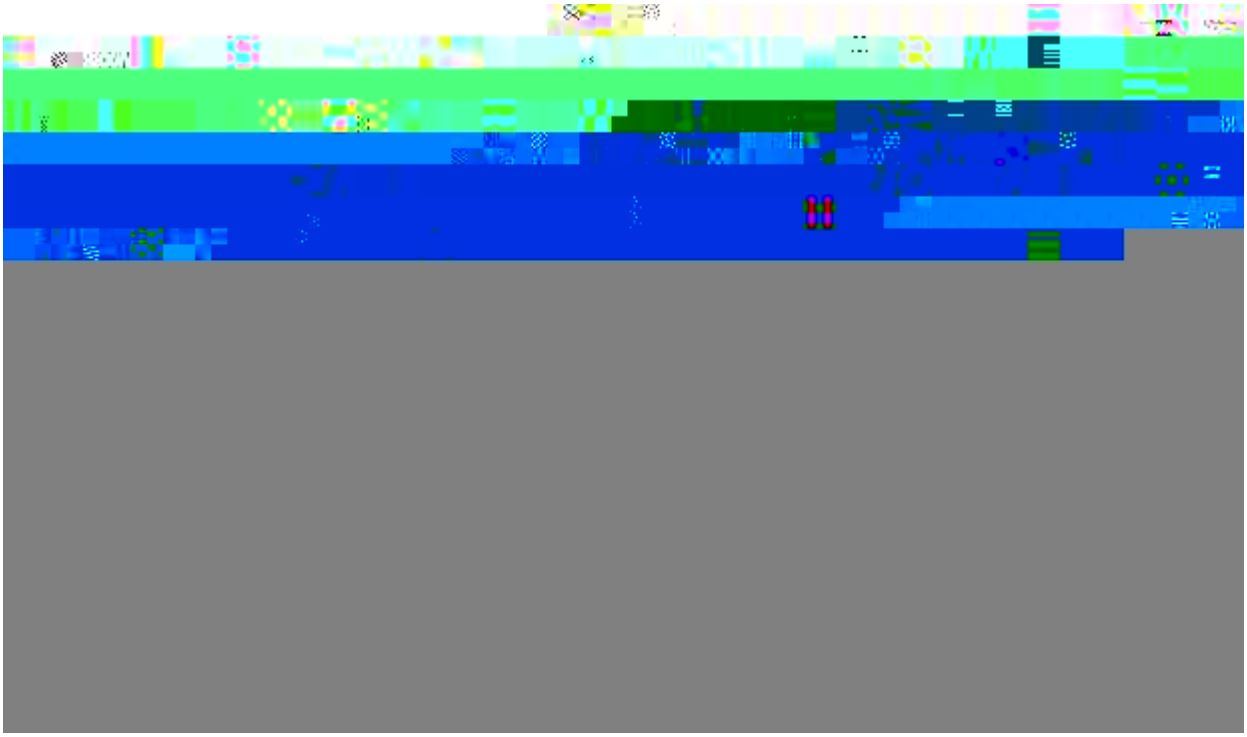
See Marking Instructions.

BRESD3V3X1C2ZA

Rev.

97.30C 0 Tr 917-.32 \ Tf 0 0 0 sc 2 Tm /F5 0 -12.7140 Tm /F5 1 Tf 017002 8.534 70.2 9 sc 0 0 0 SC 002

/ Electrical Characteristics(Ta=25)



Definitions of electrical characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse maximum working voltage	V_{RWM}				3.3	V
Reverse leakage current	I_R	V_{RWM} = 3.3V		<1	50	nA
Reverse breakdown voltage	V_{BR}	I_T=1mA	7.0	10.0		V
Clamping voltage [1)]	V_{CL}	I_{PP}=16A t_p=100ns		8		V
Dynamic resistance [1)]	R_{DYN}			0.25		Ω
Clamping voltage [2)]	V_{CL}	V_{ESD}= 8kV		8.0		V
Clamping voltage [3)]	V_{CL}	I_{PP} = 1A t_p = 8/20μs		4.5	5.5	V
		I_{PP} = 4A t_p = 8/20μs		7	8.5	V
Junction Capacitance	C_J	V_R = 0V f = 1MHz		0.4	0.55	pF

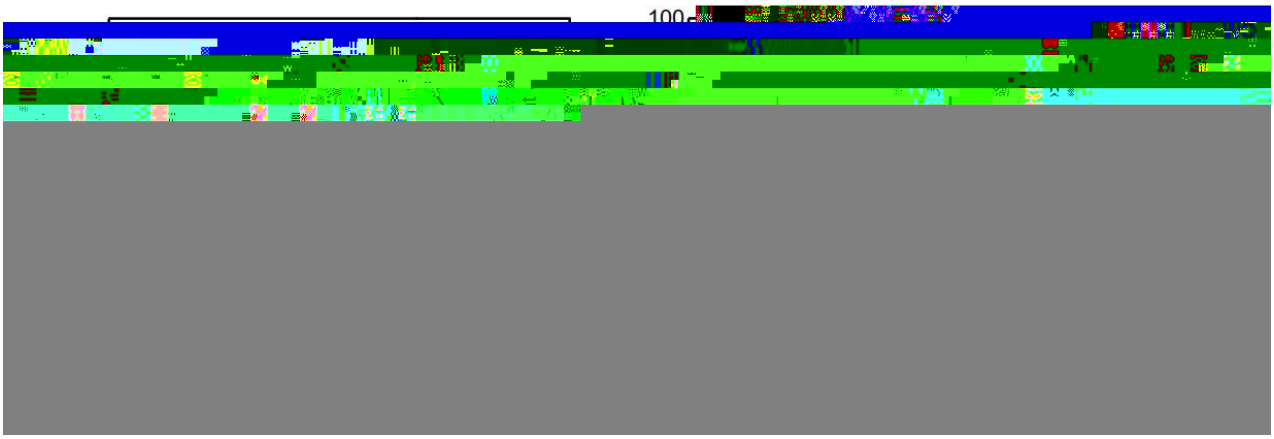
Notes:

1) TLP parameter: Z0 = 50Ω, tp = 100ns, tr = 2ns, averaging window from 60ns to 80ns. RDYN is calculated from 4A to 16A.

2) Contact discharge mode, according to IEC61000-4-2.

3) Non-repetitive current pulse, according to IEC61000-4-5.

/ Electrical Characteristic Curve(Ta=25)

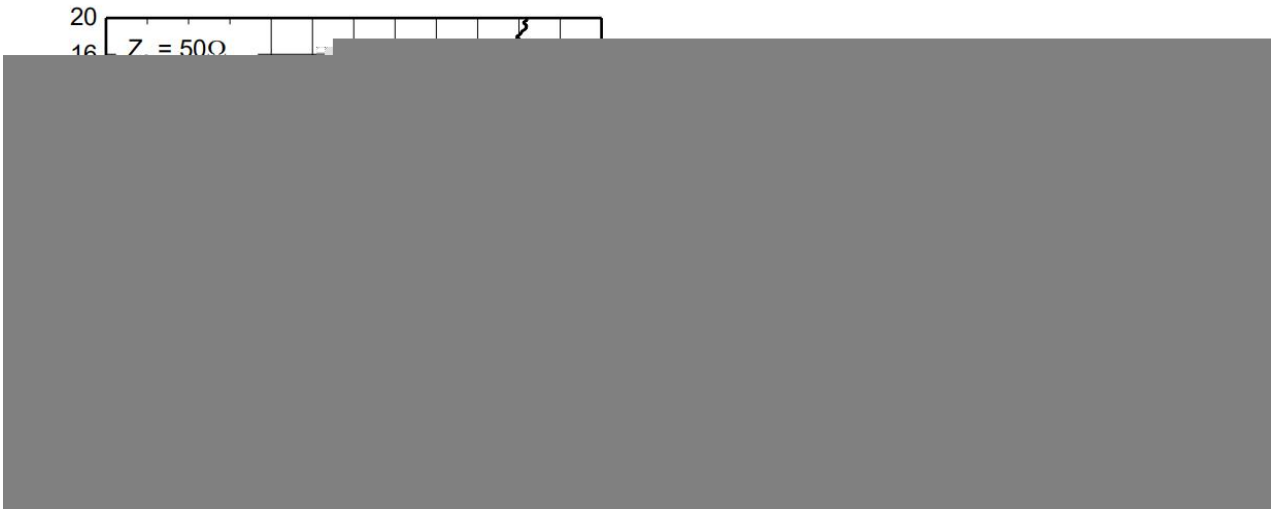






/ Electrical Characteristic Curve(Ta=25)





/ Marking Instructions

U3
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Note

U3	Product Type.
*	Lot No. Code,code change with Lot No.

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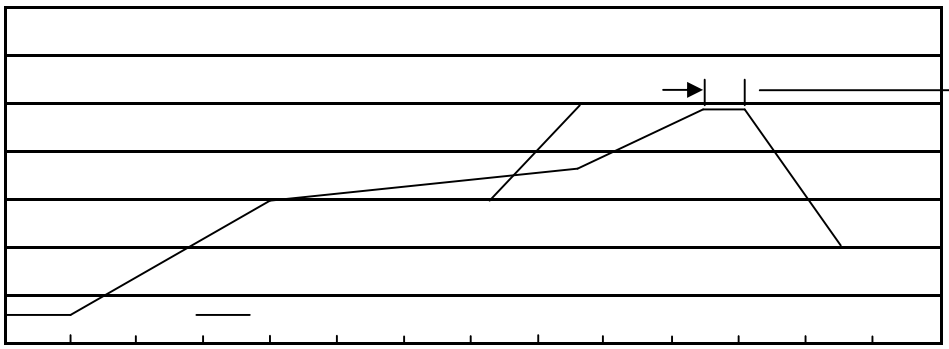

				Note:
1	150	180	60 90sec;	1.Preheating:150~180℃, Time:60~90sec.
2	245±5		5±0.5sec;	2.Peak Temp.:245±5℃, Duration:5±0.5sec.
3		2	10℃/sec.	3. Cooling Speed: 2~10℃/sec.

/ Resistance to Soldering Heat Test Conditions

260±5℃ 10±1 sec. Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box 盒	Outer Box 箱
DFN0603-2L	10,000	10	100,000	6	600,000	7″ ×8	180×120×180	390×385×205

/ Notices