

ESD2020HC18VU

ESD2020HC18VU Transient Voltage Suppressors ESD Protection Diode

General description

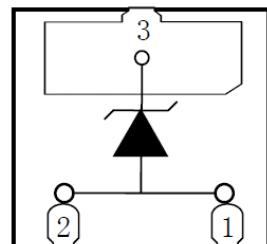
Silicon Protection Diode in a DFN2020-3L Package.

FEATURES

- 4500 Watt peak pulse power (t/p=8/20)
- DFN2020-3L Package
- Bidirectional configurations
- Low Leakage Current
- Low clamping voltage
- Capacitance Typ. 950pF
- Protection one data line / Power Line to :
- IEC 61000-4-2 $\pm 30\text{Kv}$ Contact $\pm 30\text{Kv}$ air.
- IEC 61000-4-4 EFT 40A(5/50nS)
- IEC 61000-4-5 Lightning 140A(8/20uS)
- RoHS Compliant , Halogen Free
- Lead Free
- UL94-V0



DFN2020-3L Package



Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
P_{pp}	Peak pulse power	4500	W
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_J	Junction Temperature	-55 to +125	°C
ESD	IEC61000-4-2 Air Discharge Contact Discharge	± 30 ± 30	KV
EFT	IEC61000-4-4	40	A
Lightning	IEC61000-4-5	140	A

Device Marking:

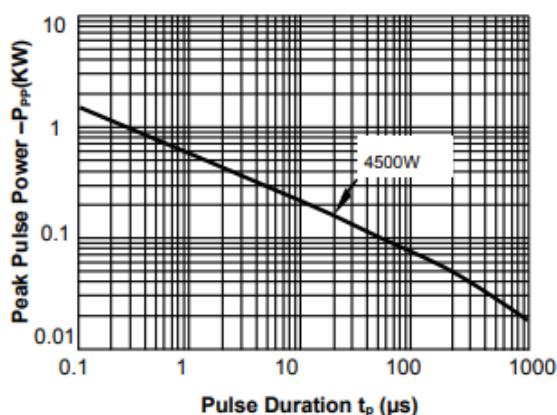
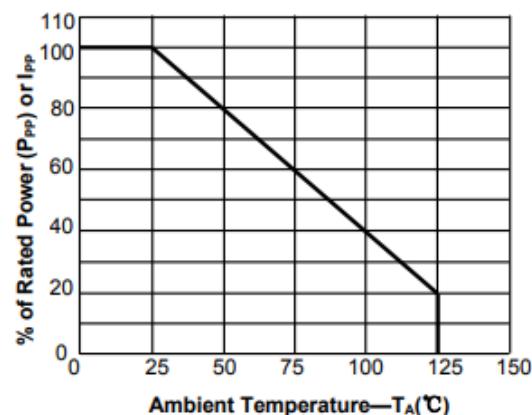
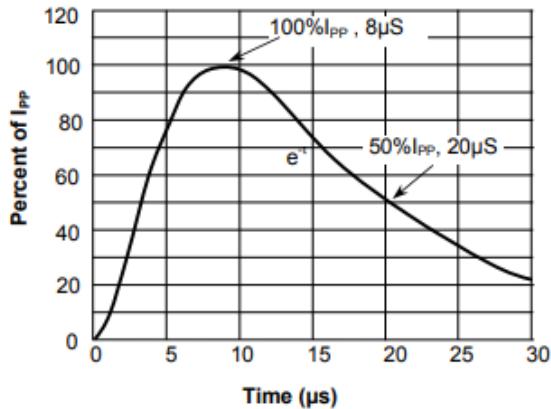
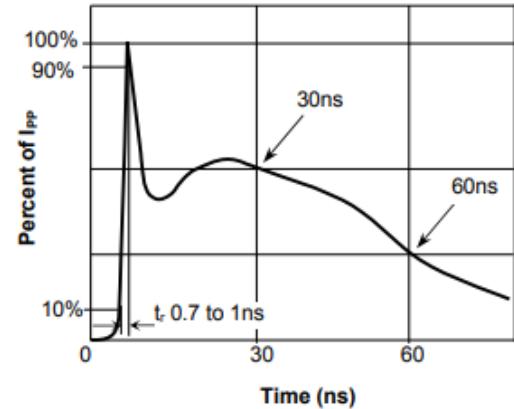
Device Type	Marking
ESD2020HC12VU	T18 or 018

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				18	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	19.0			V
Reverse Leakage Current	I_R	$V_R=18\text{V}$			1	uA
Clamping Voltage (IEC 61000-4-5)	V_c	$I_{PP}=30\text{A}$			25	V
Clamping Voltage (IEC 61000-4-5)	V_c	$I_{PP}=100\text{A}$			29	V
Clamping Voltage (IEC 61000-4-5)	V_c	$I_{PP}=140\text{A}$			33	V
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$	900			pF

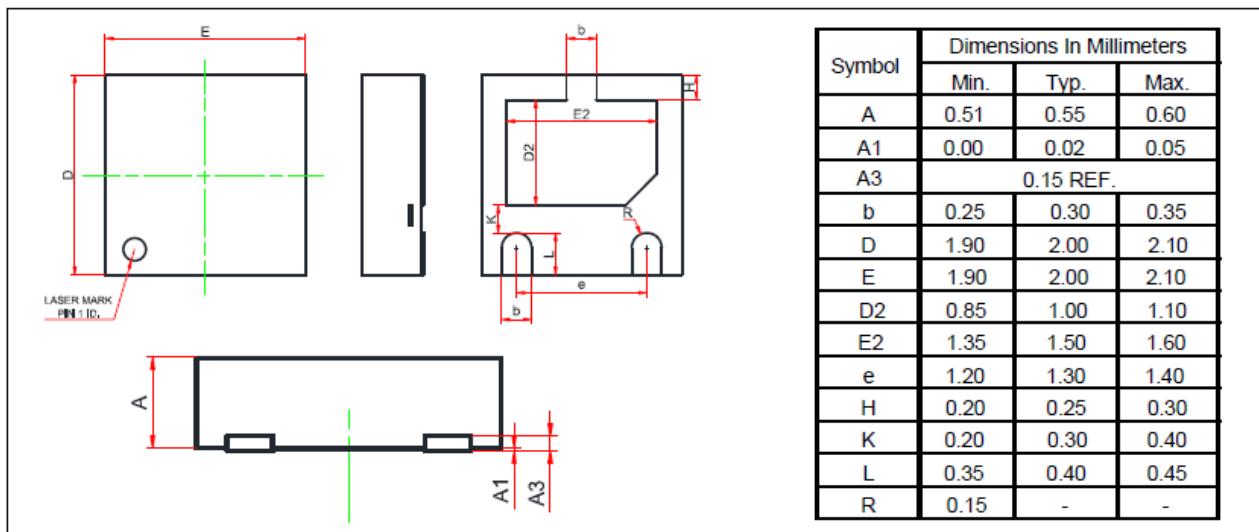
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Typical Characteristics ($T_{amb} = 25^{\circ}\text{C}$ unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

Fig.2 Pulse Derating Curve

Fig.3 Pulse Waveform-8/20μs

Fig.4 Pulse Waveform-ESD(IEC61000-4-2)


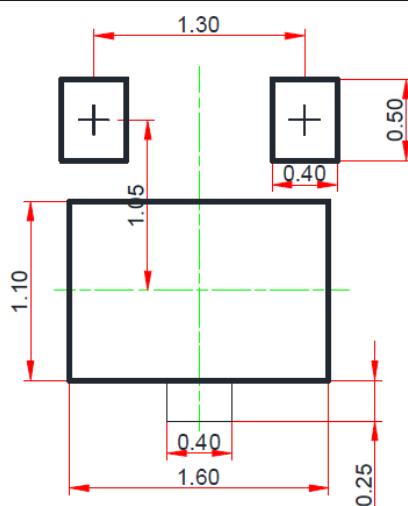
DFN2020-3L Package Outline

Package Dimensions



ESD2020HC18VU

PAD Dimensions



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