

**ESD Array**

**Peak Pulse Power - 150 Watts**

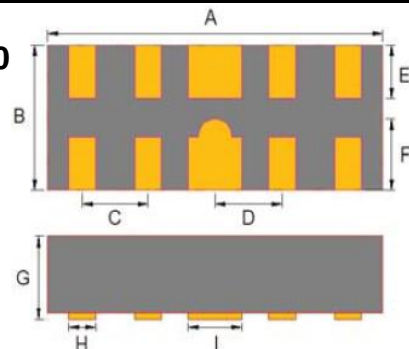
**Features**

- Meet IEC61000-4-2 (ESD)  $\pm 17\text{kV}$  (air),  $\pm 12\text{kV}$  (contact)
- Meet IEC61000-4-4 (EFT) rating. 40A (5/50  $\mu\text{s}$ )
- Meet IEC61000-4-5 (Lightning) rating. 5A (8/20  $\mu\text{s}$ )
- Protects four high speed I/O lines
- Working Voltage : 5V
- Pb free version, RoHS compliant, and Halogen free

**Mechanical Data**

- Case : DFN2510-10 standard package, molded plastic
- Terminal: Au/Sn plated, Lead free, solderable per MIL-STD-202,
- Method 202 guaranteed
- Working Voltage: 5V
- Marking Code : P524
- MSL : Level 1

**DFN2510-10**



Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.45	2.55	0.096	0.100
B	0.95	1.05	0.037	0.041
C	0.45	0.55	0.018	0.022
D	0.45	0.55	0.018	0.022
E	0.30	0.40	0.012	0.016
F	0.45	0.55	0.018	0.022
G	0.45	0.55	0.018	0.022
H	0.15	0.25	0.006	0.010
I	0.35	0.45	0.014	0.018

Package Outline Dimensions in Inches (Millimeters)

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Min	Typ	Max	Unit
	Marking	P524			
Peak Pulse Power, $t_p = 8 / 20 \mu\text{s}$ (According to IEC61000-4-5 )	$P_{pp}$		150		W
Maximum Peak Pulse Current, $t_p = 8 / 20 \mu\text{s}$ (According to IEC61000-4-5 )	$I_{pp}$		5		A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$		$\pm 17$		kV
ESD per IEC 61000-4-2 (Contact)			+12		kV
Operating Junction Temperature	$T_j$	-55		150	°C
Storage Temperature	$T_{stg}$	-55		150	°C
Reverse Stand-Off Voltage	$V_{RWM}$			5	V
Reverse Breakdown Voltage, $I_t = 1\text{mA}$	$V_{BR}$	6.0			V
Reverse Leakage Current, $V_{RWM} = 5\text{V}$	$I_R$			1	$\mu\text{A}$
Clamping Voltage, $I_{pp} = 1\text{A}$ , $t_p = 8/20 \mu\text{s}$	$V_c$			15	V
Clamping Voltage, $I_{pp} = 5\text{A}$ , $t_p = 8/20 \mu\text{s}$				125	V
Junction Capacitance, Between I/O Pin and GND $V_R = 0\text{V}$ , $f = 1\text{MHz}$	$C_j$		0.6	0.8	pF

Notes: Valid provided that electrodes are kept at ambient temperature.

HEAX65V0J-7-99-00/01-CC0015

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FIG 1 Non-Repetitive Peak Pulse Power vs. Pulse Time

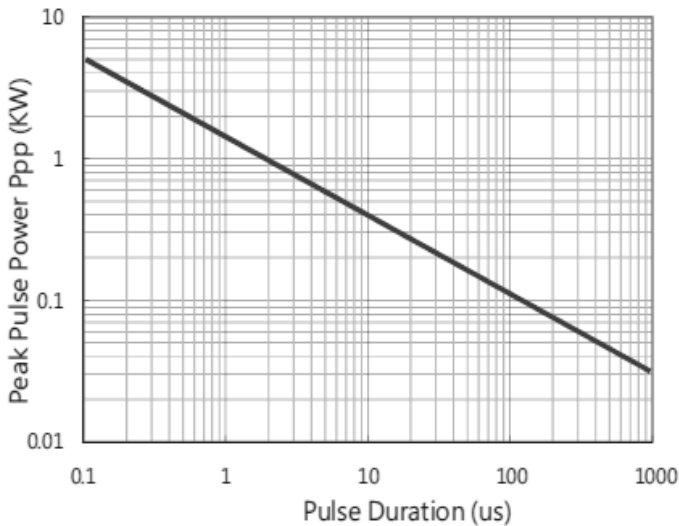


FIG 2 Pulse Waveform

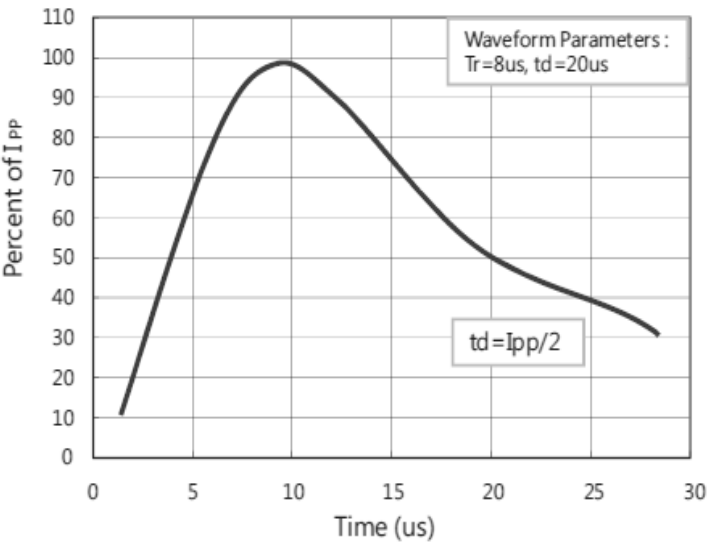


FIG 3 Admissible Power Dissipation Curve

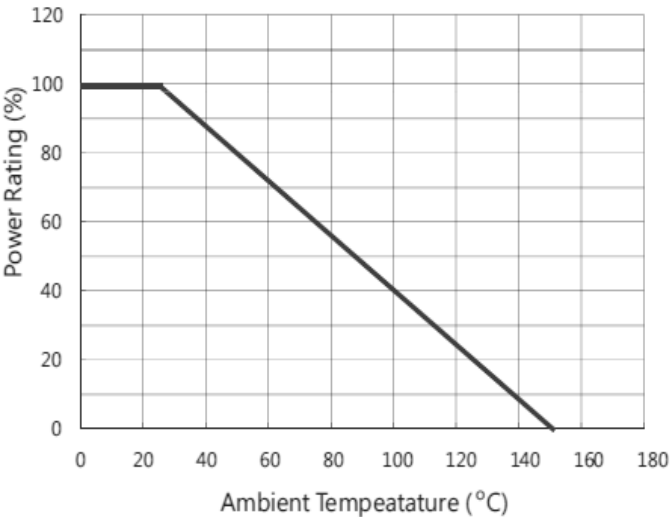
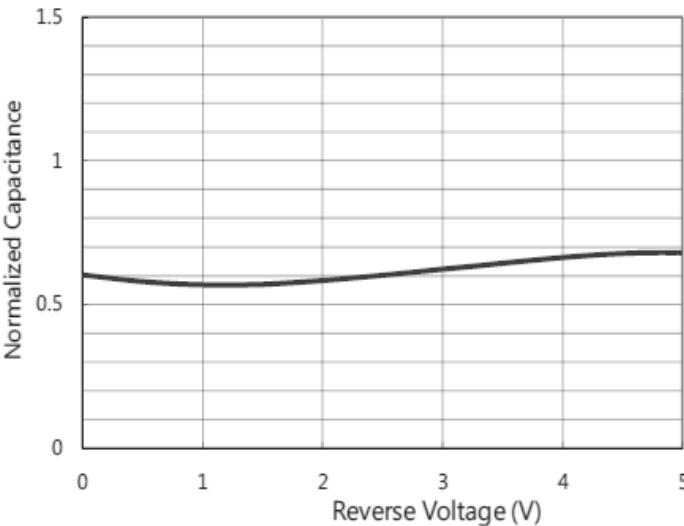


FIG 4 Typical Junction Capacitance



The curve above is for reference only.

FIG 5 Clamping Voltage vs. Peak Pulse Current)

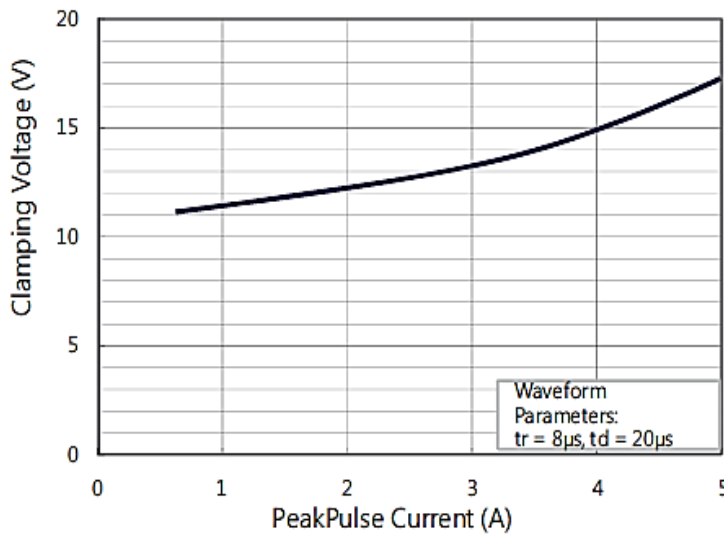


FIG 6 Insertion Loss

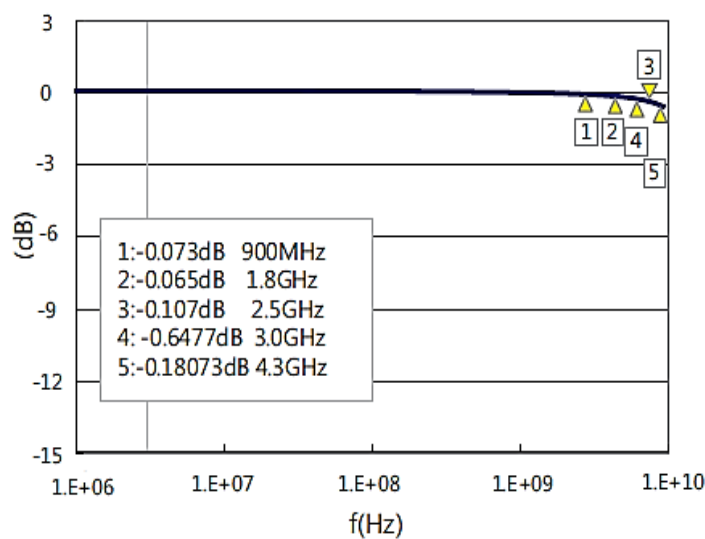
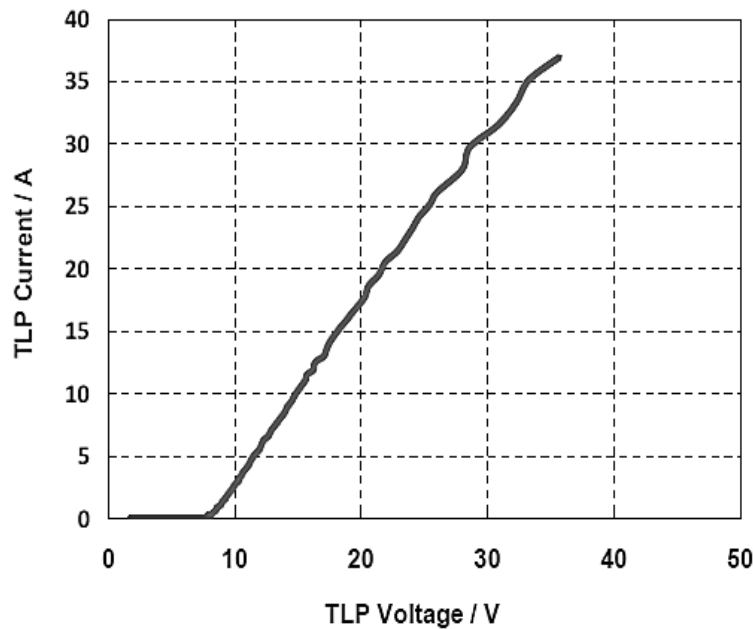


FIG 7 TLP Measurement



The curve above is for reference only.

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