

Features

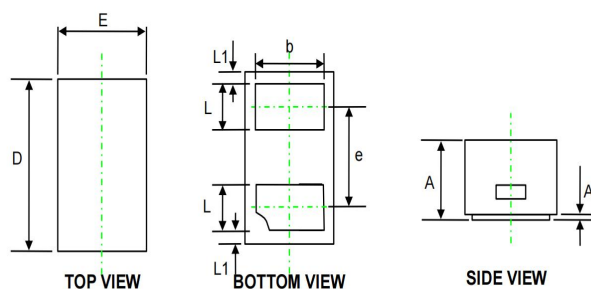
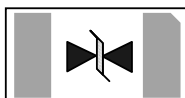
100Watts peak pulse power ($t_p = 8/20\mu s$)
 Tiny DFN1006 package
 Bidirectional configurations
 Solid-state silicon-avalanche technology
 Low clamping voltage
 Low leakage current
 Low capacitance ($C_j = 0.3pF$ typ. IO to IO)
 IEC 61000-4-2 $\pm 20kV$ contact $\pm 20kV$ air
 IEC 61000-4-4 (EFT) 40A/50ns
 IEC 61000-4-5 (Lightning) 4.5A (8/20 μs)

Applications

Cell Phone Handsets and Accessories
 Microprocessor based equipment
 Personal Digital Assistants (PDA's)
 Notebooks, Desktops, and Servers
 Portable Instrumentation

Mechanical Data

DFN1006 package
 Molding compound flammability rating: UL 94V-0
 Packaging: Tape and Reel
 RoHS/WEEE Compliant



Symbol	Dimensions In Millimeters (mm)		
	Min.	Typ.	Max.
A	0.44	0.47	0.50
A1	0.00	0.03	0.05
D	0.95	1.00	1.08
E	0.55	0.60	0.68
b	0.40	0.50	0.60
e	-	0.65	-
L	0.20	0.25	0.30
L1	0.05 REF.		

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{PP}	4.5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	20 20	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 125	$^{\circ}C$

CES42D5BU

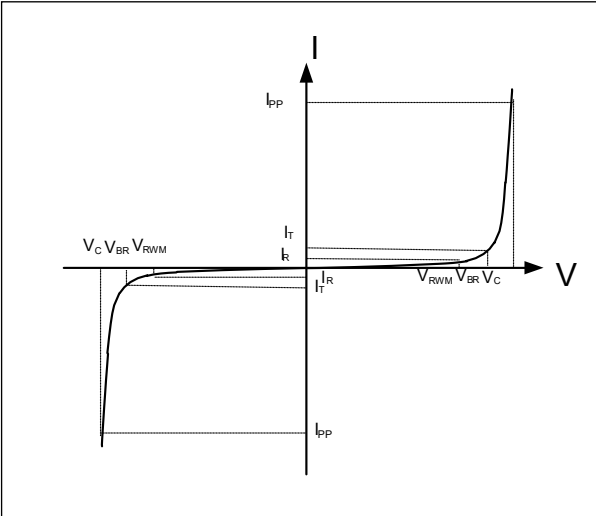
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6.0			V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^{\circ}C$			100	nA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			4.0	A
Clamping Voltage	V_C	$I_{PP}=4.5A, t_p=8/20\mu s$			20	V
Junction Capacitance	C_j	IO to IO $V_R=0V, f=1MHz$		0.3		pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current

Note:.. 8/20μs pulse waveform.



RATING AND CHARACTERISTIC CURVES (CES42D5BU)

Figure 1: Peak Pulse Power vs. Pulse Time

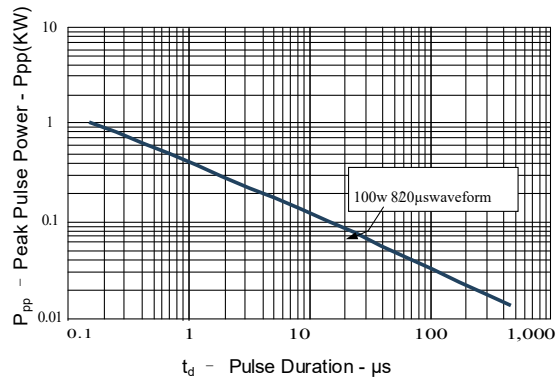


Figure 2: Power Derating Curve

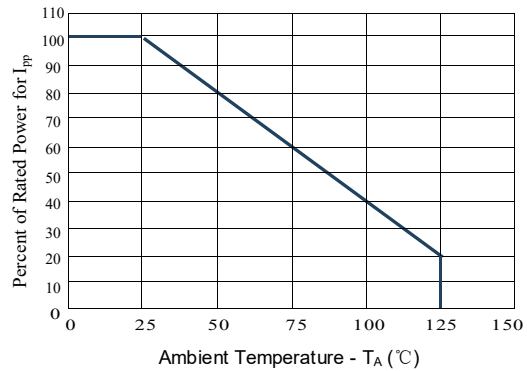


Figure3: Pulse Waveform

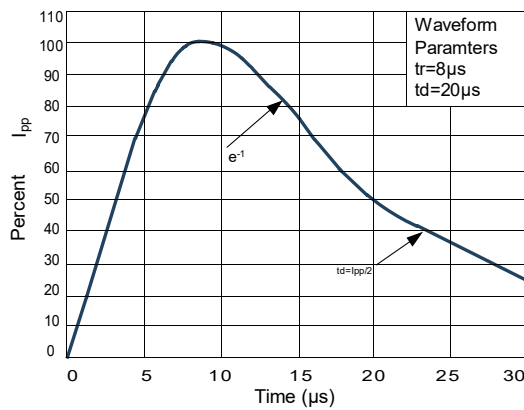


Figure 4: Clamping Voltage vs. Ipp

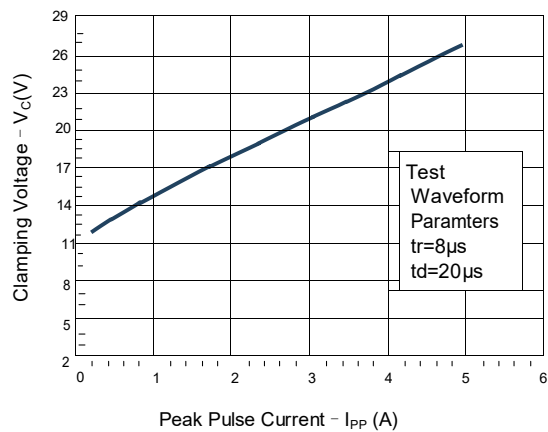


Figure5: Positive Clamping voltage (TLP)

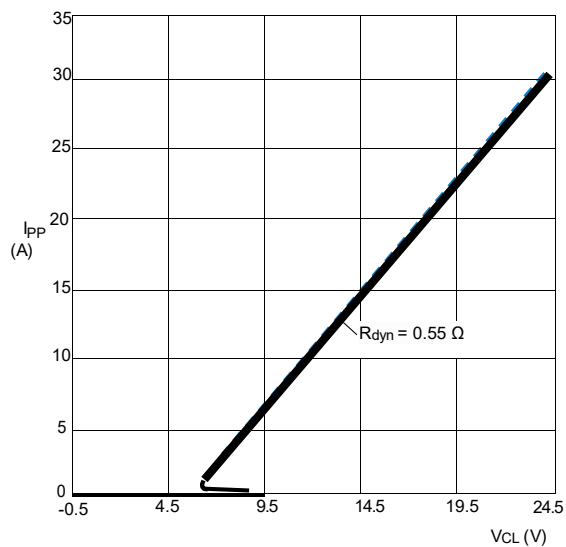


Figure5: Negative Clamping voltage (TLP)

