

EVVOSEMI[®]

THINK CHANGE DO



ESD



TVS



MOS



LDO



Diode



Sensor



DC-DC

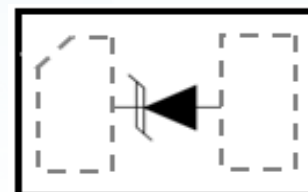
Product Specification

▶ Domestic	Part Number	TPD1E05U06DPYR
▶ Overseas	Part Number	TPD1E05U06DPYR-EV
▶ Equivalent	Part Number	TPD1E05U06DPYR

EV is the abbreviation of name EVVO

Features

- 45W peak pulse power ($t_p = 8/20\mu s$)
- Tiny X1SON-2 package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j = 0.7pF$ typ.)
- Protection one data/power line
- IEC 61000-4-2 $\pm 10kV$ contact $\pm 15kV$ air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 3.5A(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

- X1SON-2 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	45	W
Peak Pulse Current ($t_p = 8/20\mu s$)(note1)	I_{pp}	3.5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 10	kV
Lead Soldering Temperature	T_L	260/10S	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6.0	7.5		V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}, T=25^\circ\text{C}$		0.1	0.5	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$			3.5	A
Clamping Voltage	V_C	$I_{PP}=3.5\text{A}, t_p=8/20\mu\text{s}$		12	15	V
Junction Capacitance	C_j	$V_R = 0\text{V}, f = 1\text{MHz}$		0.7	0.9	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

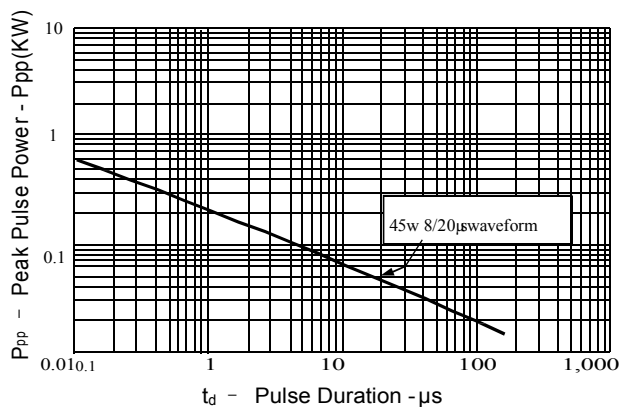


Figure 2: Power Derating Curve

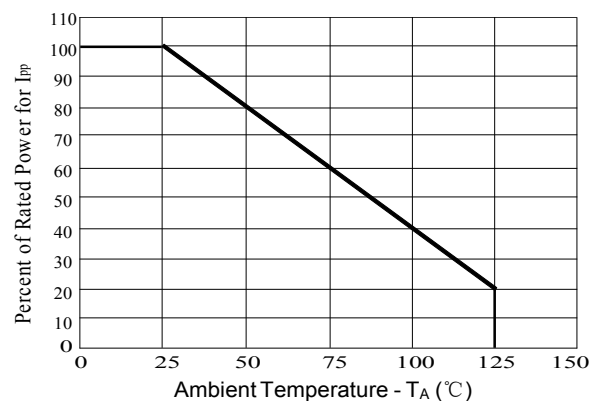


Figure3: Pulse Waveform

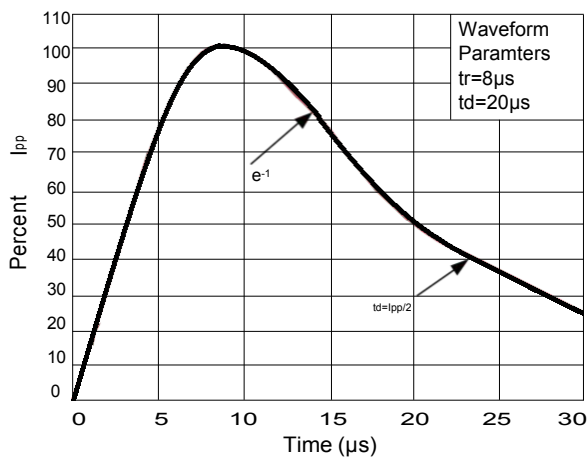
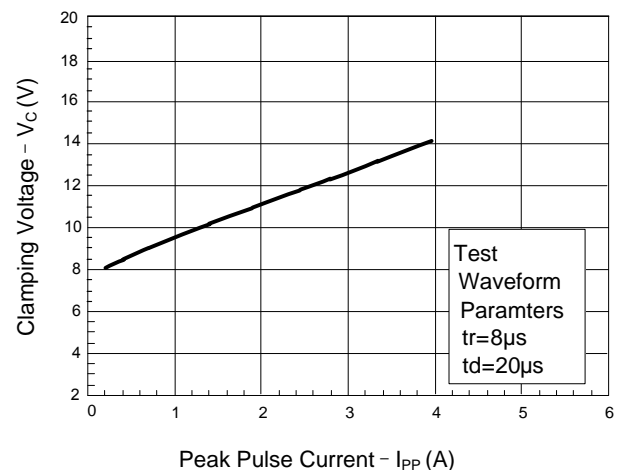
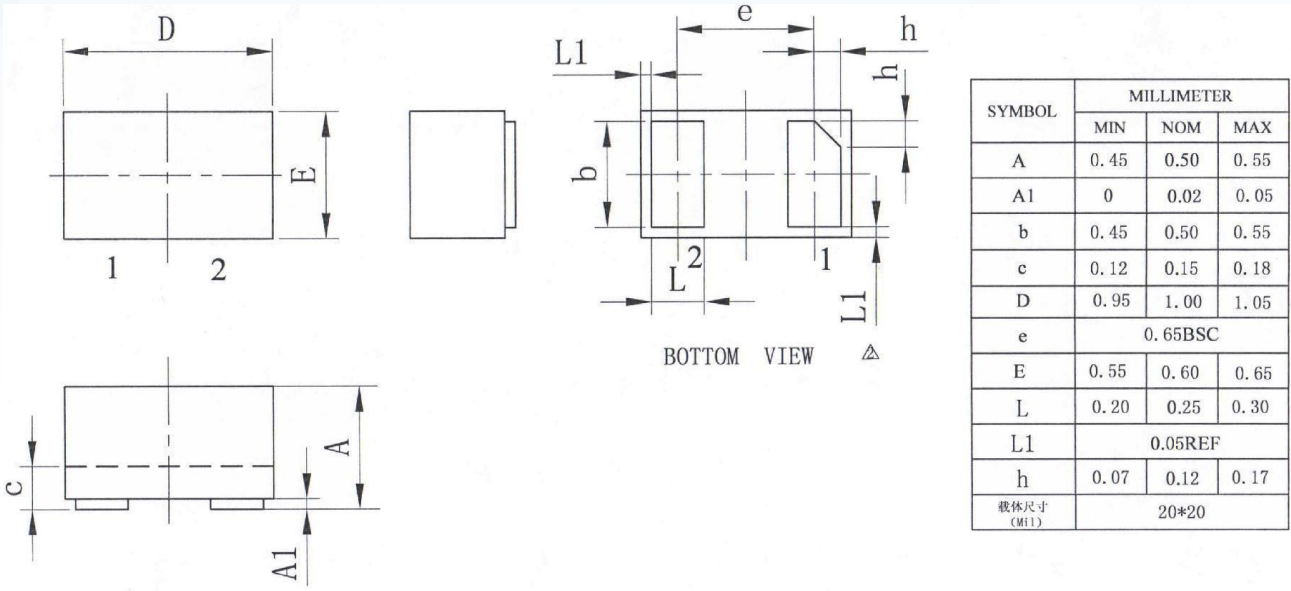


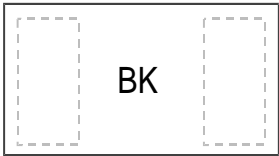
Figure 4: Clamping Voltage vs. Ipp



Outline Drawing –X1SON-2



Marking



Ordering information

Order code	Package	Baseqty	Deliverymode
TPD1E05U06DPYR	X1SON-2	10000	Tape and reel

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