

EVVOSEMI[®]

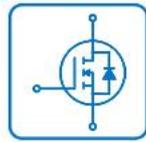
THINK CHANGE DO



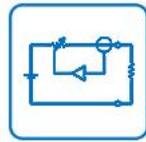
ESD



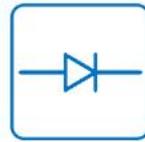
TVS



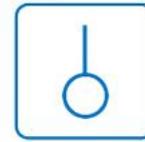
MOS



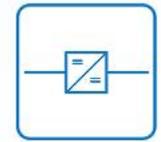
LDO



Diode



Sensor



DC-DC

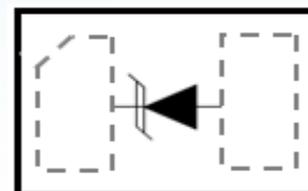
Product Specification

▶ 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 (tp = 8/20μs)
- Tiny X1SON-2 package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (Cj=0.7pF typ.)
- Protection one data/power line
- IEC 61000-4-2 ±10kV contact ±15kV air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 3.5A(8/20μs)



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 (tp =8/20μs)	P _{PP}	45	W
Peak Pulse Current (tp =8/20μs)(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}	$I_T=1mA$	6.0	7.5		V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^\circ C$		0.1	0.5	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			3.5	A
Clamping Voltage	V_C	$I_{PP}=3.5A, t_p=8/20\mu s$		12	15	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		0.7	0.9	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

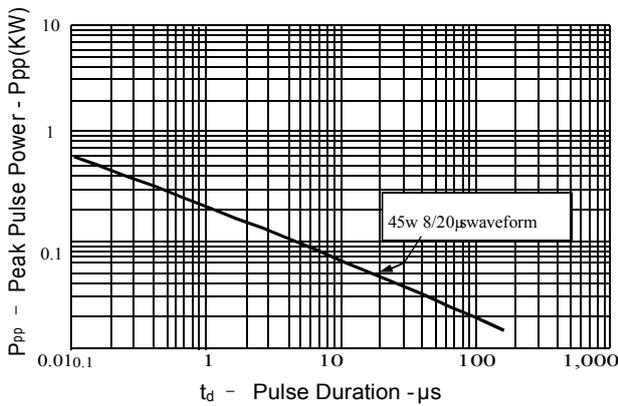


Figure 2: Power Derating Curve

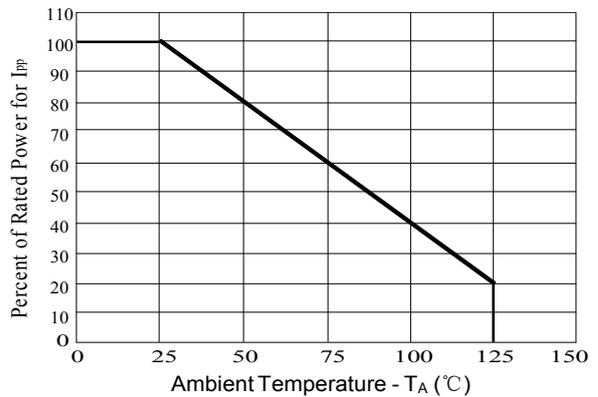


Figure 3: Pulse Waveform

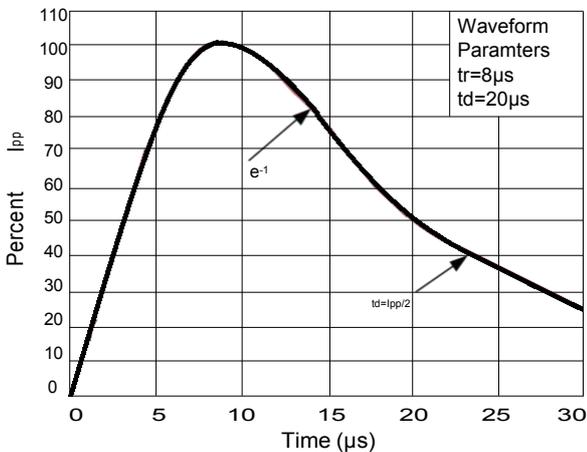
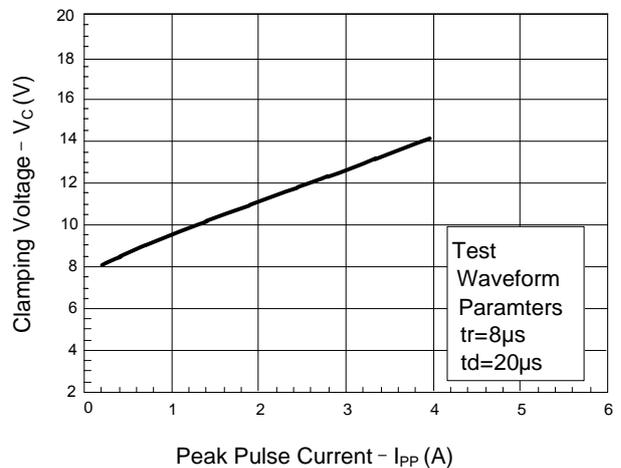
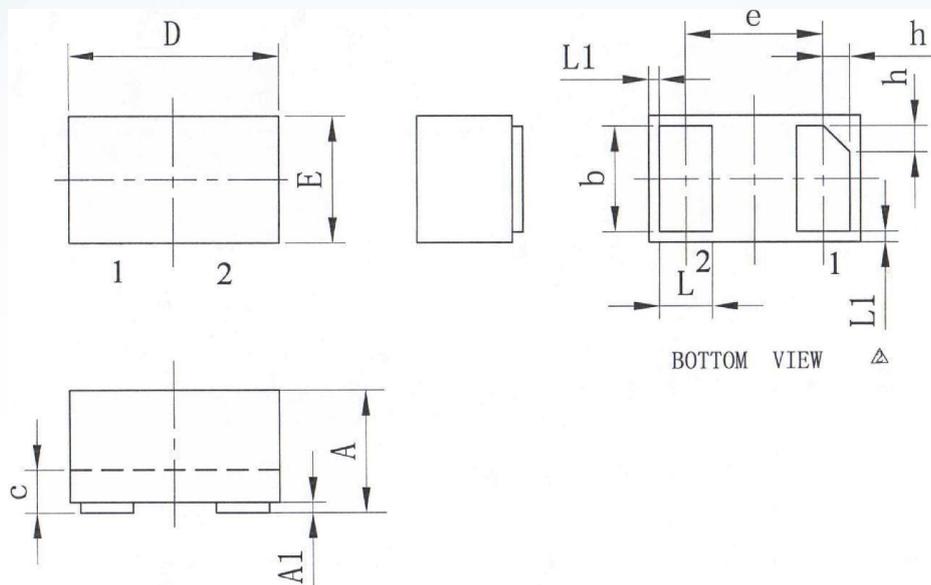


Figure 4: Clamping Voltage vs. Ipp

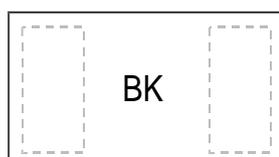


Outline Drawing -X1SON-2



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17
载体尺寸 (M1)	20*20		

Marking



Ordering information

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

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