

1.Features

- 150Watts peak pulse power ($t_p=8/20\mu s$)
- Tiny SOT143 package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j=1.5pF$ typ I/O to I/O.)
- Protection one data/power line to:
- IEC 61000-4-2 $\pm 15kV$ contact $\pm 20kV$ air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 5A(8/20 μs)

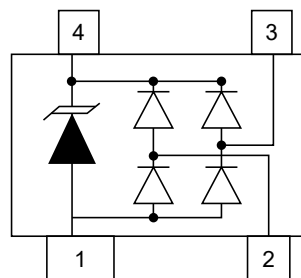
2.Applications

- USB2.0,
- Ethernet
- Notebooks, Desktops, and Servers
- Video Line Protection

3.Mechanical Data

- SOT143 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel

4.Pinning information



SOT-143



5. Absolute Maximum Ratings

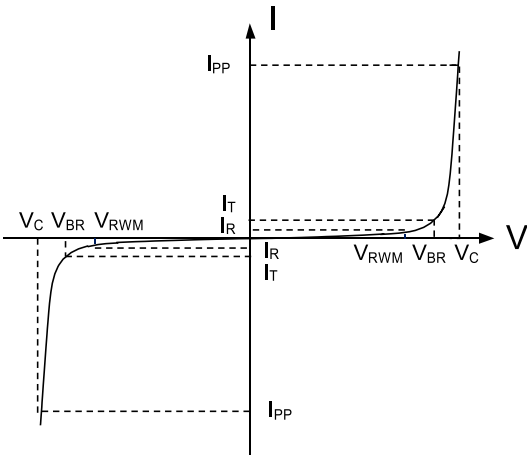
Parameter	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	150	W
Peak Pulse Current ($t_p=8/20\mu s$)(note1)	I_{PP}	5	A
ESD per IEC 61000-4-2(Air)	V_{ESD}	20	kV
ESD per IEC 61000-4-2(Contact)		15	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to 125	°C
Storage Temperature	T_{STG}	-55 to 125	°C



6.Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^{\circ}C$			500	nA
Clamping Voltage	V_C	$I_{PP}=5A, t_p=8/20\mu s$		14		V
Junction capacitance	C_J	$V_R=0V, f=1MHz, IO\ to\ IO$		1.5		pF
		$V_R=0V, f=1MHz, IO\ to\ GND$		1	2	pF

7.Electrical Parameters ($T_A=25^{\circ}C$ unless otherwise noted)

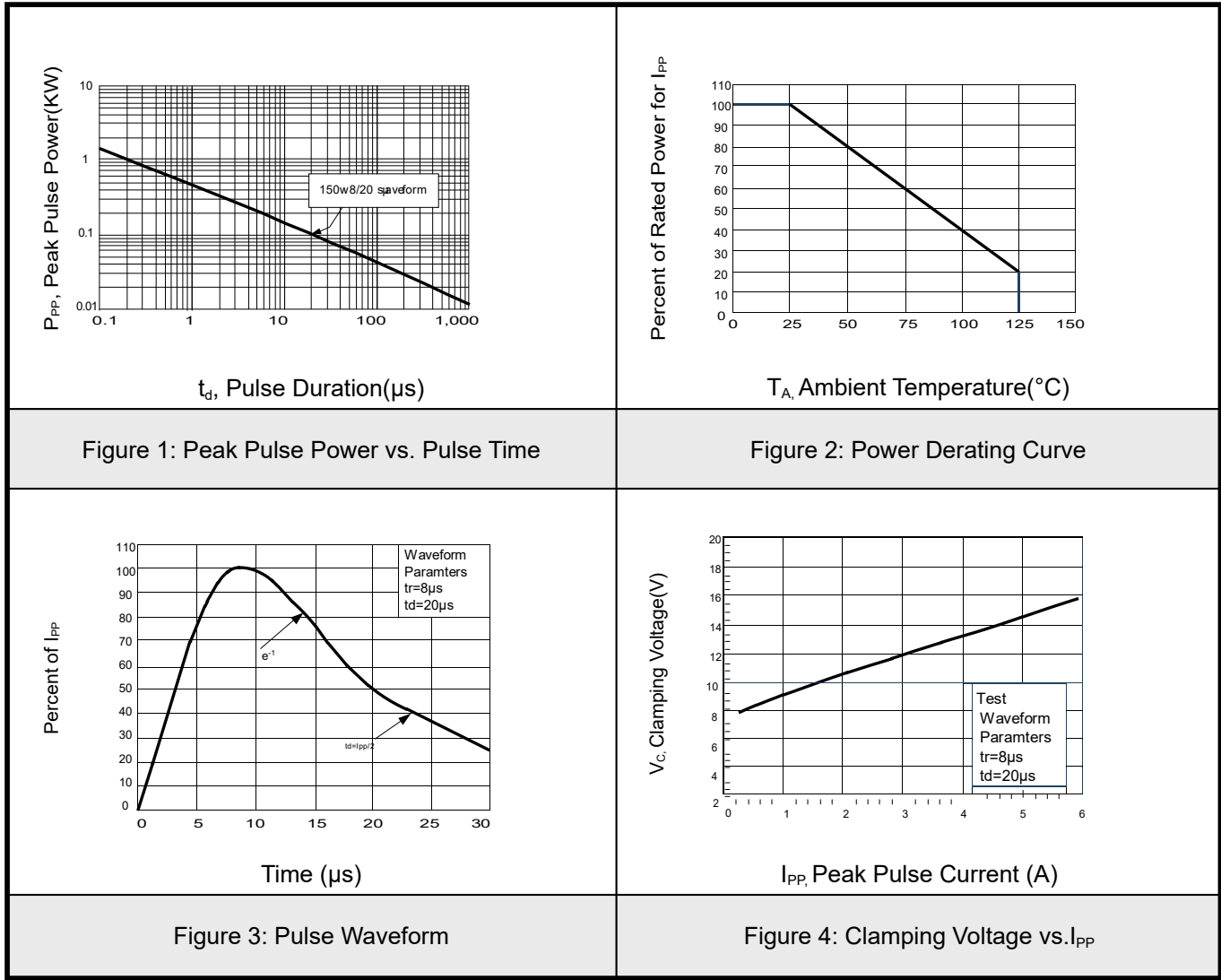


Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current

Notes: 8/20μs pulse waveform.

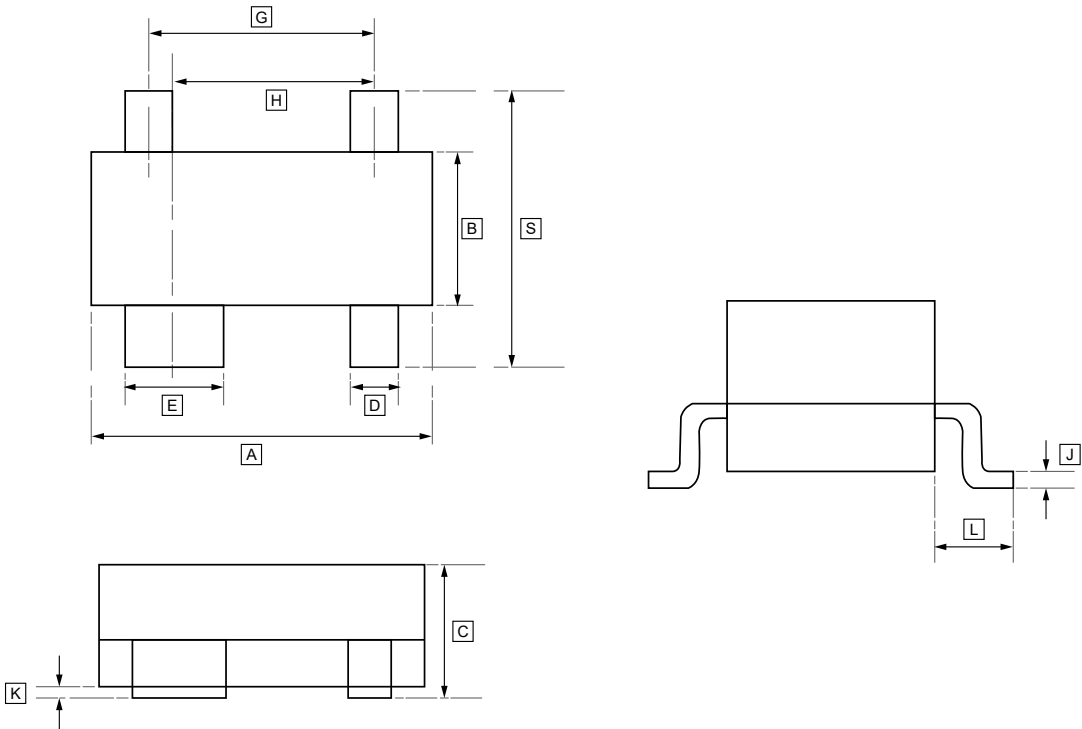


8. Typical characteristic





9.SOT-143 Package Outline Dimensions

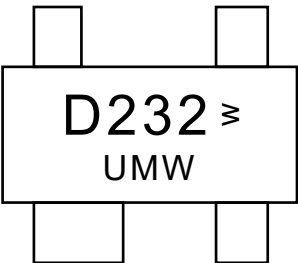


DIMENSIONS (mm are the original dimensions)

Symbol	A	B	C	D	E	G	H	J	K	L	S
Min	2.80	1.20	0.80	0.37	0.76	1.92	1.72	0.085	0.013	0.254	2.10
Max	3.04	1.40	1.20	0.510	0.940	BSC	BSC	0.180	0.10	0.55	2.64



10.Ordering information



w: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW CM1213A-02SR	SOT-143	3000	Tape and reel



11.Disclaimer

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