

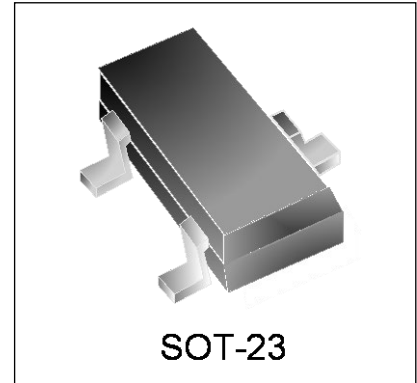


Features

- 100 Watts Peak Pulse Power
- Low Clamping Voltage
- Ultra Low Capacitance (< 0.4pF)
- Working Voltage: 5V
- Low Leakage Current
- Response Time is Typically < 1 ns

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 18\text{kV}$ (air), $\pm 12\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)



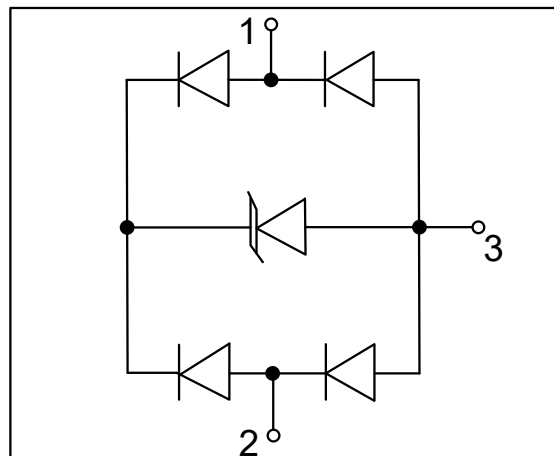
Mechanical Characteristics

- SOT-23 package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant

Applications

- Laptop Computers
- USB 2.0 and USB 3.0
- Cellular Phones
- Digital Cameras
- HDMI 1.3 and HDMI 1.4

Circuit Diagram

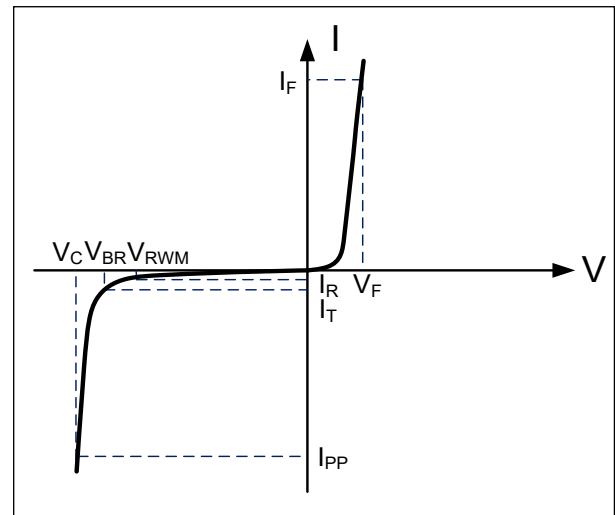


Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	5	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(contact)	V_{ESD}	+/-18 +/-12	kV
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F

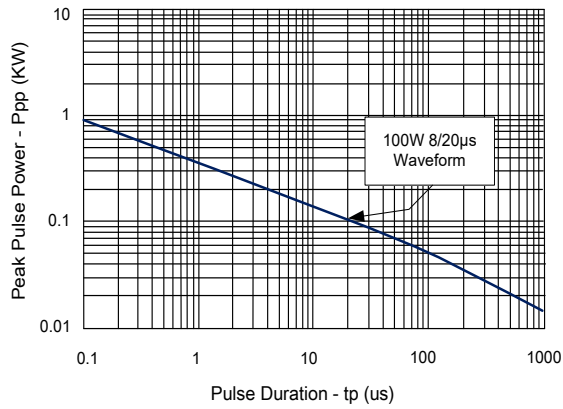


Electrical Characteristics

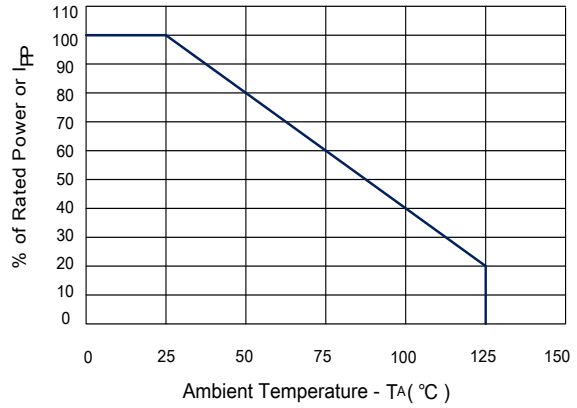
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6.0			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V, T = 25^\circ C$			0.5	μA
Clamping Voltage	V_C	$I_{pp} = 1A, t_p = 8/20\mu s$			10	V
Clamping Voltage	V_C	$I_{pp} = 5A, t_p = 8/20\mu s$			15	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$ I/O pin to GND		0.6	0.8	pF
		$V_R = 0V, f = 1MHz$ Between I/O pins		0.3	0.4	pF

Typical Characteristics

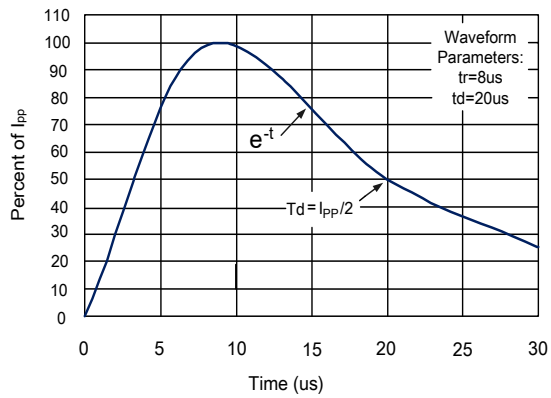
Non-Repetitive Peak Pulse Power vs. Pulse Time



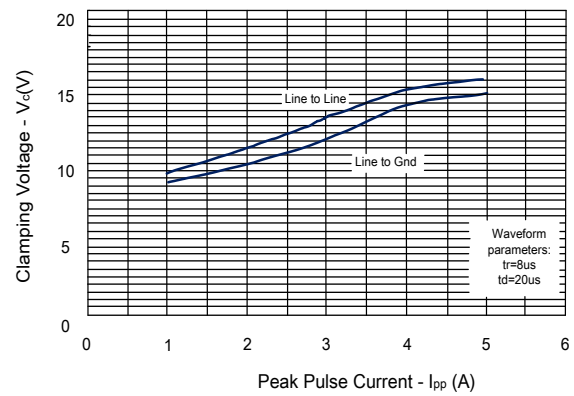
Power Derating curve



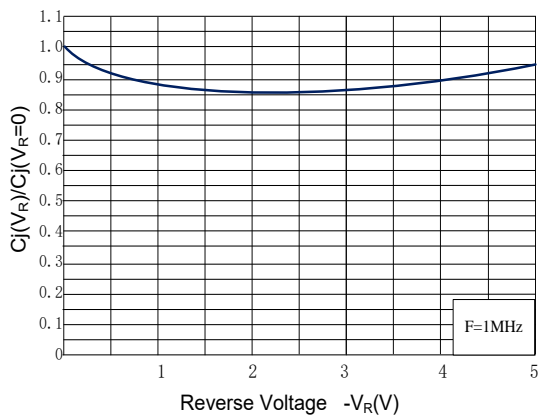
Pulse Waveform



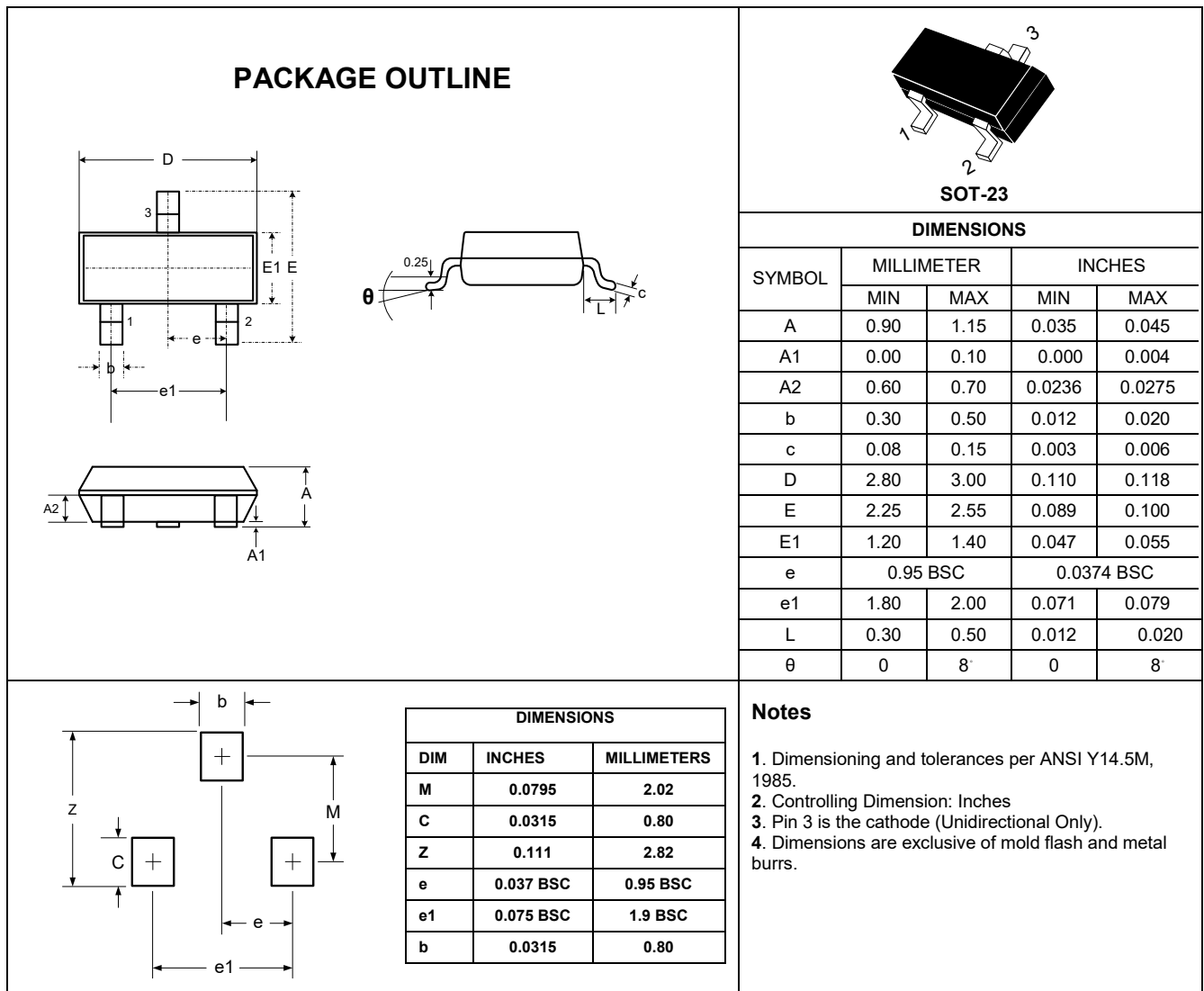
Clamping Voltage vs. Peak Pulse Current



Normalized Junction Capacitance vs. Reverse Voltage



Outline Drawing – SOT-23



Marking Codes

Part Number	DW05M2UC-E	Marking Code	5MU
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Package Information

Qty: 3k/Reel