

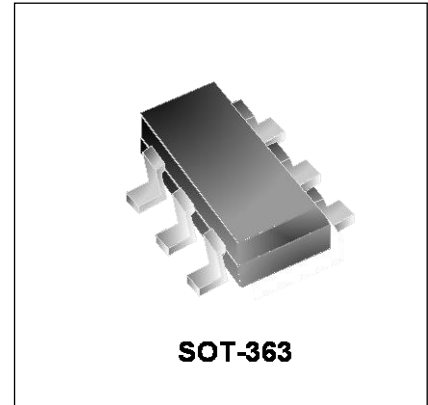


## Features

- Low operating voltage: 5V
- Ultra low capacitance: 0.5pF
- Solid-state silicon-avalanche and active circuit triggering technology
- Back-drive protection for power-down mode
- Lead-free version available

## IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 20\text{kV}$  (air),  $\pm 15\text{kV}$  (contact)
- IEC 61000-4-4 (EFT) Level-3, 55A (5/50ns)
- IEC 61000-4-5 (Lightning) 6A (8/20 $\mu\text{s}$ )



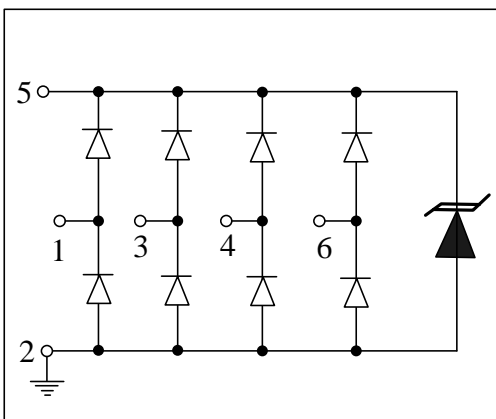
## Mechanical Characteristics

- SOT-363 package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS Compliant

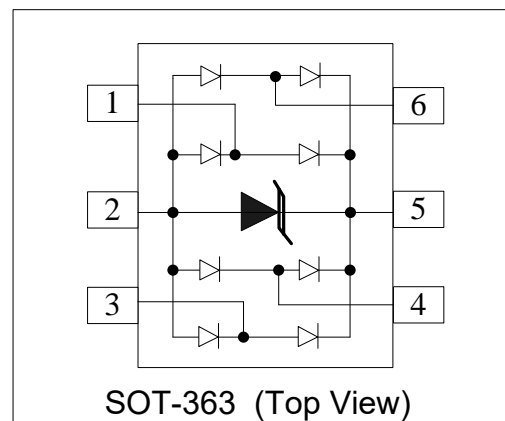
## Applications

- Video/Graphics Card
- Digital Visual Interface (DVI)
- USB2.0 Power and Data lines protection
- Notebook and PC Computers
- Monitors and Flat Panel Displays

## Circuit Diagram



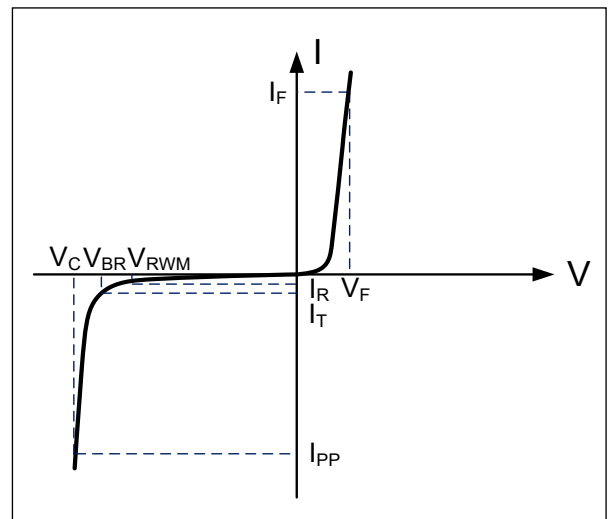
## Schematic & PIN Configuration



<b>Absolute Maximum Rating</b>			
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	120	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ )	$I_{PP}$	6	A
Operating Temperature	$T_J$	-55 to + 85	°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 @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse 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

<b>DW05-4RT3-E</b>						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$	Pin5 to pin2 T=25°C			5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$ Pin 5 to pin2	6.0			V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V, T=25°C$ Pin 5 to pin2			1	$\mu A$
Forward Voltage	$V_F$	$I_T=10mA$		0.8	1	V
Clamping Voltage	$V_C$	$I_{PP}=6A, t_p=8/20\mu s$ I/O pin to GND		17.5	20	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$ I/O pin to GND		1.0	1.5	pF
		$V_R = 0V, f = 1MHz$ Between I/O pins		0.5		pF

## Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

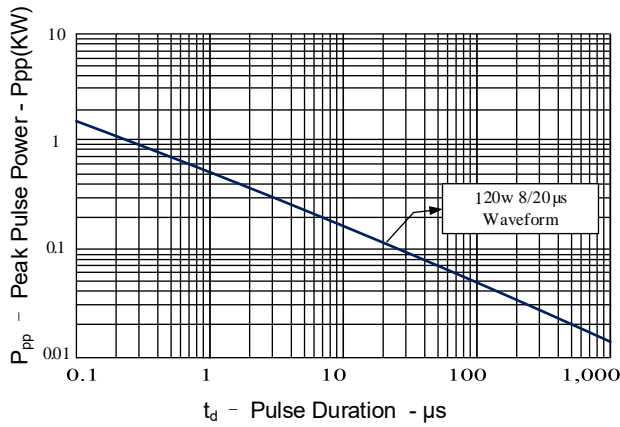


Figure 2: Power Derating Curve

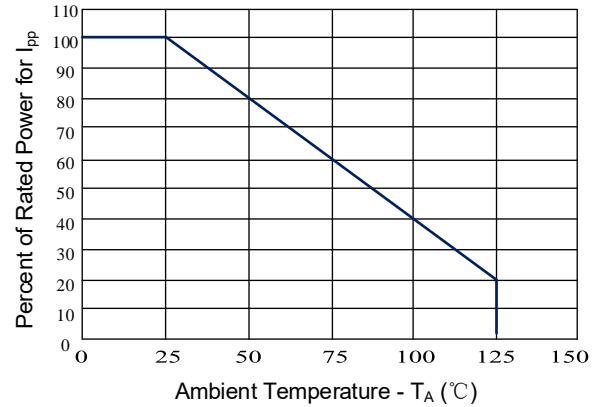


Figure 3: Pulse Waveform

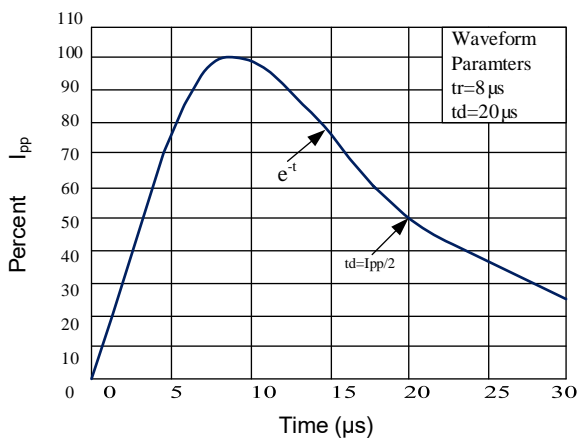


Figure 4: Clamping Voltage vs. Peak Pulse Current

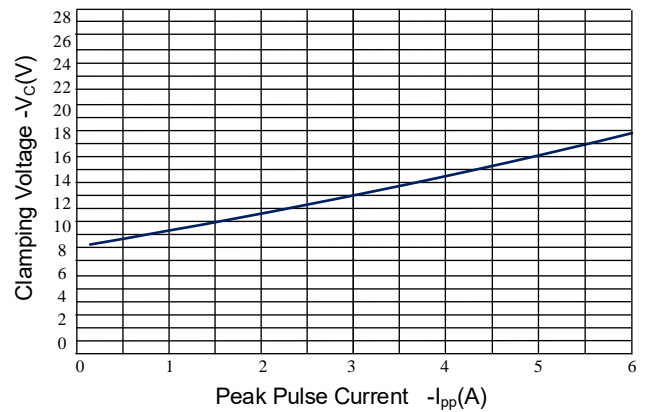


Figure 5: Capacitance vs. Reverse Voltage

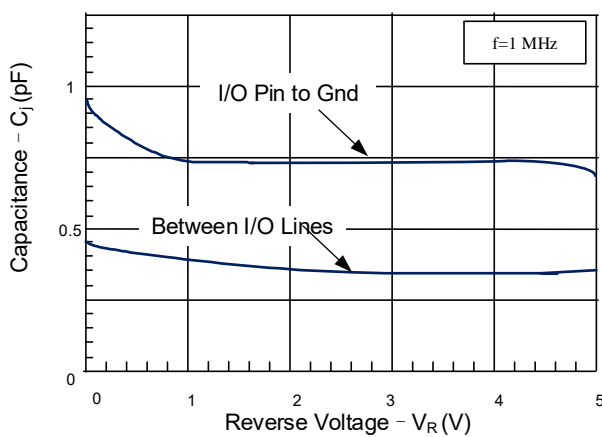
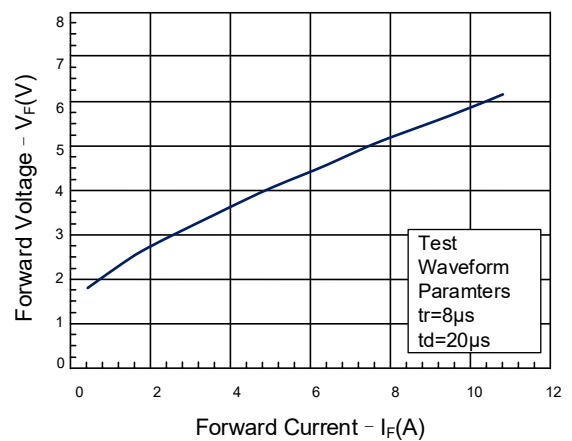
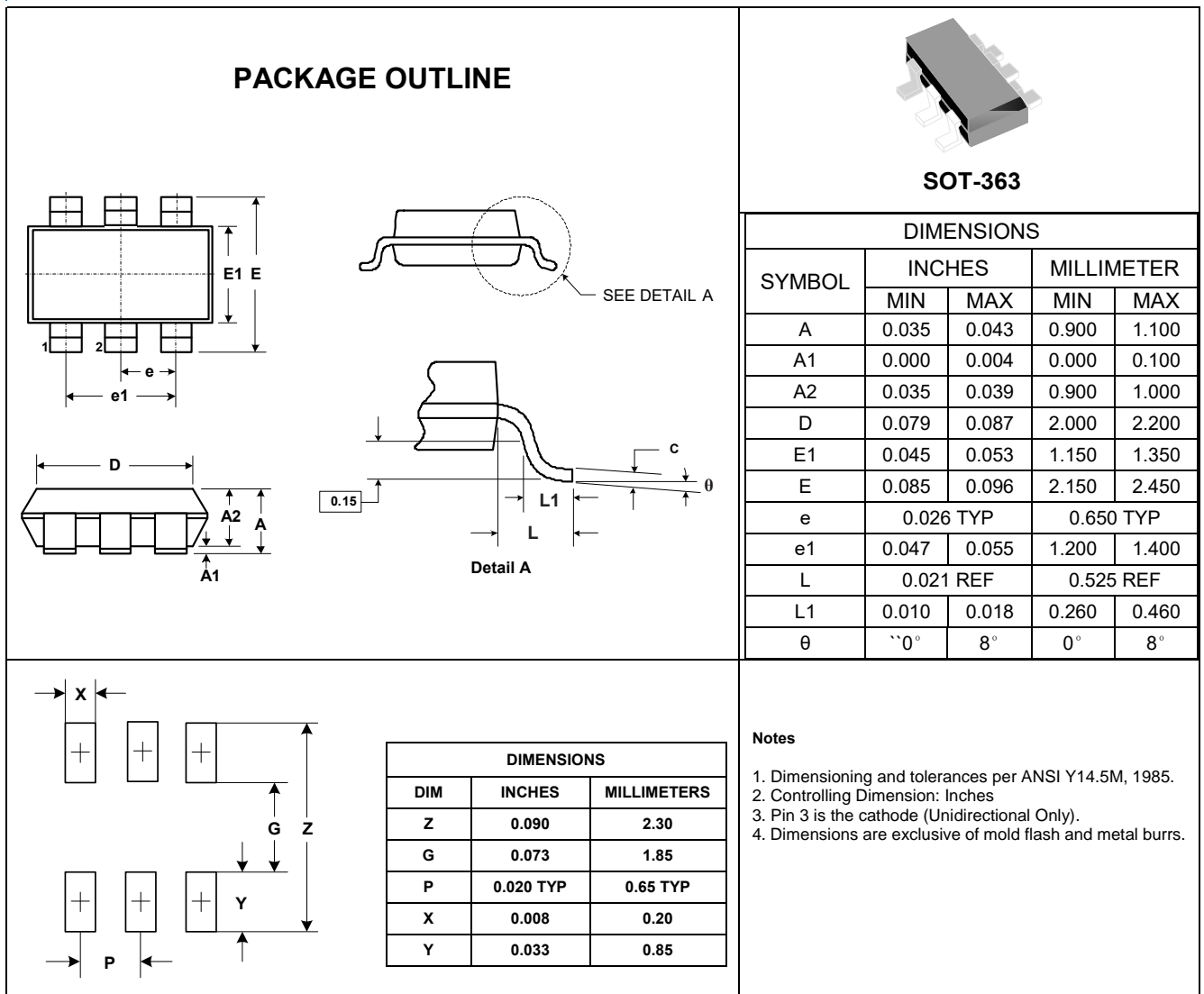


Figure 6: Forward Voltage vs. Forward Current

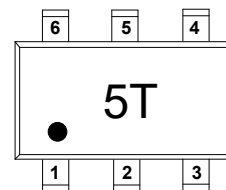


## Outline Drawing – SOT-363



## Marking Codes

Part Number	DW05-4RT3-E
Marking Code	5T



## Package Information

Qty: 3k/Reel