

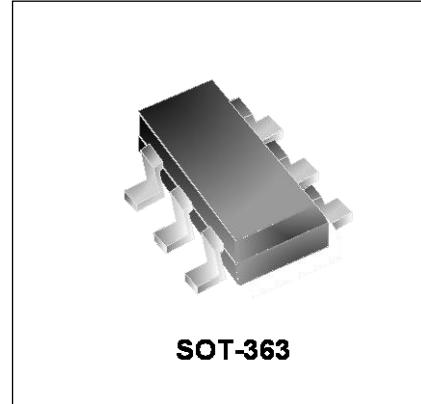


Features

- 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 μs)



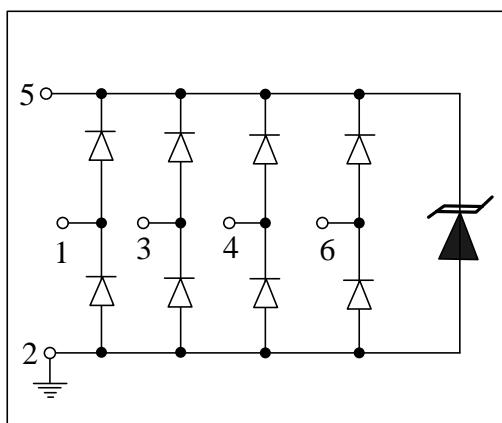
Mechanical Characteristics

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

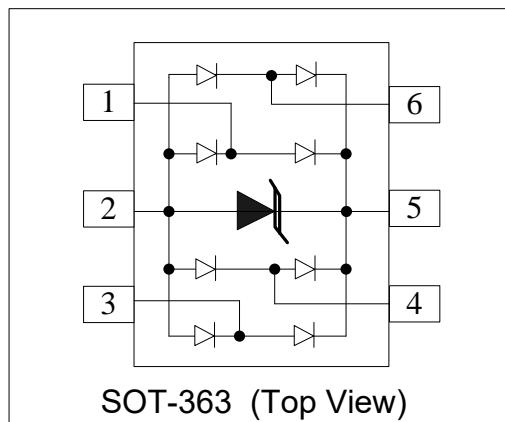
Applications

- 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



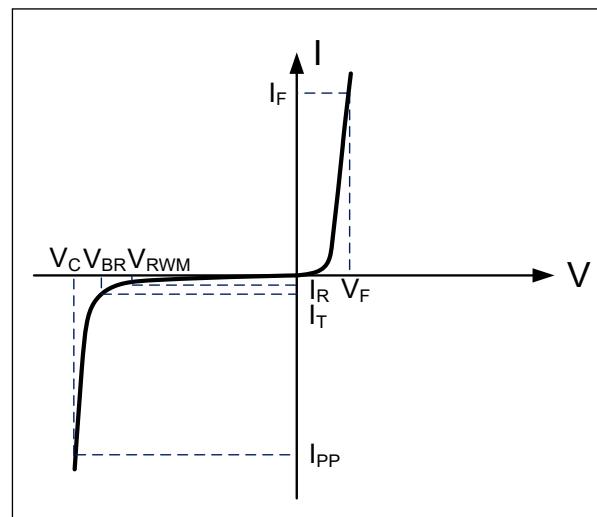


Absolute Maximum Rating

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

DW05-4RT3-E						
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}	$I_T = 1\text{mA}$ Pin 5 to pin2	6.0			V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}, T=25^\circ\text{C}$ Pin 5 to pin2			1	μA
Forward Voltage	V_F	$I_T=10\text{mA}$		0.8	1	V
Clamping Voltage	V_C	$I_{PP}=6\text{A}, t_p=8/20\mu\text{s}$ I/O pin to GND		17.5	20	V
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$ I/O pin to GND		1.0	1.5	pF
		$V_R = 0\text{V}, f = 1\text{MHz}$ Between I/O pins		0.5		pF



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

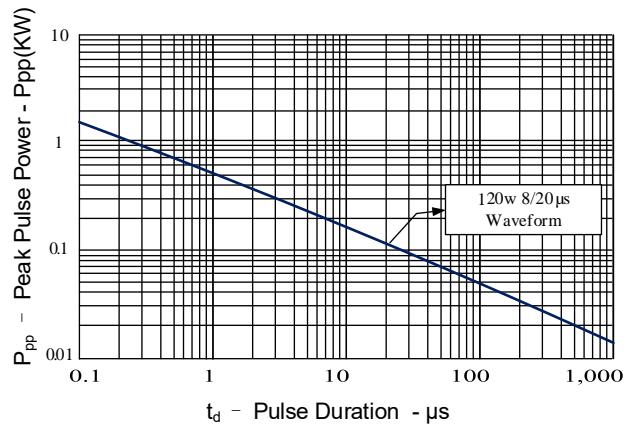


Figure 2: Power Derating Curve

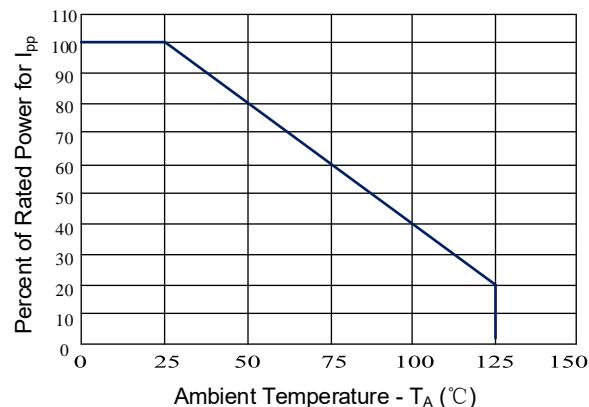


Figure 3: Pulse Waveform

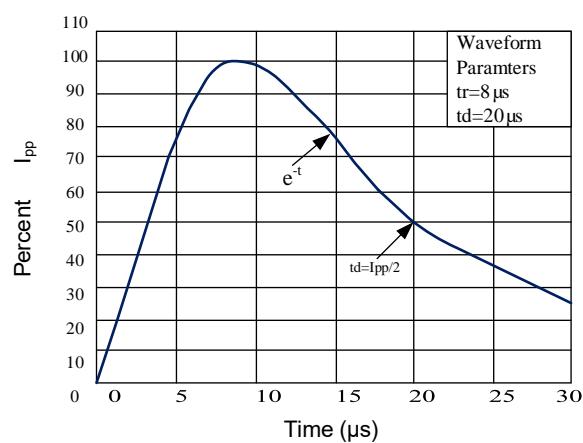


Figure 4: Clamping Voltage vs. Peak Pulse Current

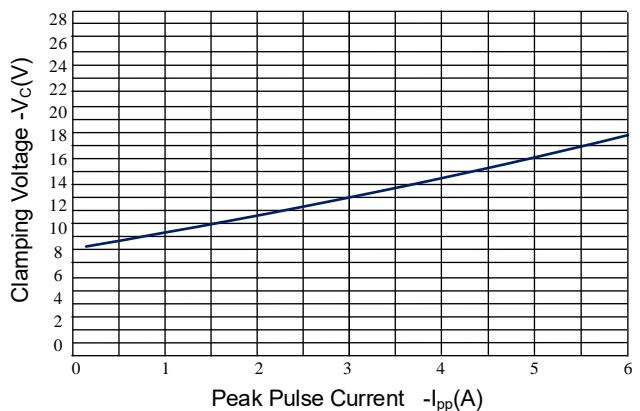


Figure 5: Capacitance vs. Reverse Voltage

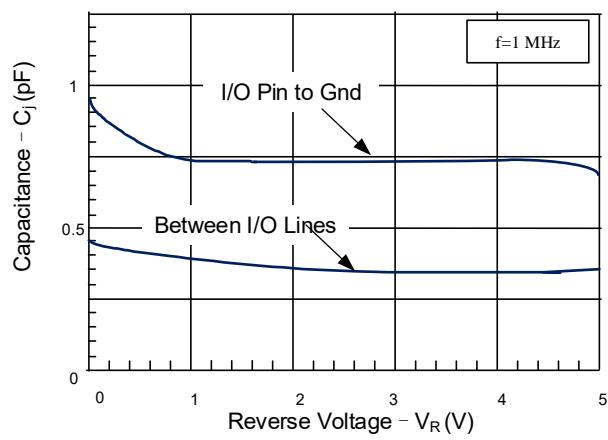
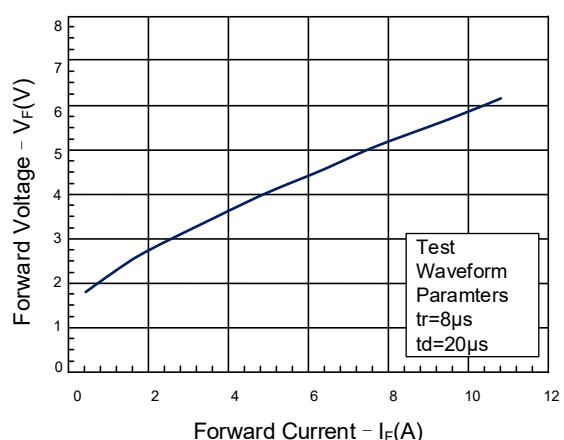


Figure 6: Forward Voltage vs. Forward Current



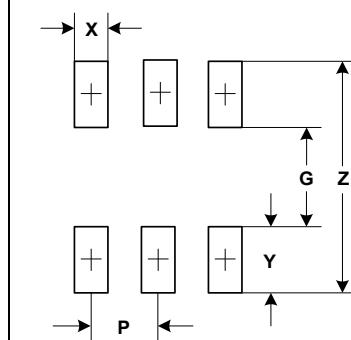


Outline Drawing – SOT-363

PACKAGE OUTLINE		SOT-363				
SYMBOL	DIMENSIONS		INCHES		MILLIMETER	
	MIN	MAX	MIN	MAX	MIN	MAX
A	0.035	0.043	0.900	1.100		
A1	0.000	0.004	0.000	0.100		
A2	0.035	0.039	0.900	1.000		
D	0.079	0.087	2.000	2.200		
E1	0.045	0.053	1.150	1.350		
E	0.085	0.096	2.150	2.450		
e	0.026 TYP		0.650 TYP			
e1	0.047	0.055	1.200	1.400		
L	0.021 REF		0.525 REF			
L1	0.010	0.018	0.260	0.460		
θ	``0°	8°	0°	8°		

Notes

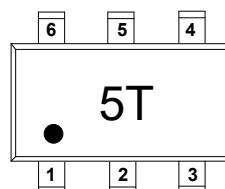
- Dimensioning and tolerances per ANSI Y14.5M, 1985.
- Controlling Dimension: Inches
- Pin 3 is the cathode (Unidirectional Only).
- Dimensions are exclusive of mold flash and metal burrs.



DIMENSIONS		
DIM	INCHES	MILLIMETERS
Z	0.090	2.30
G	0.073	1.85
P	0.020 TYP	0.65 TYP
X	0.008	0.20
Y	0.033	0.85

Marking Codes

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



Package Information

Qty: 3k/Reel