

APPLICATIONS

- ✓ RS-232, RS-422 & RS-423
- ✓ Cellular Phones
- ✓ Notebooks
- ✓ Control & Monitoring Systems
- ✓ Portable Electronics
- ✓ Wireless Bus Protection

IEC COMPATIBILITY (EN61000-4)

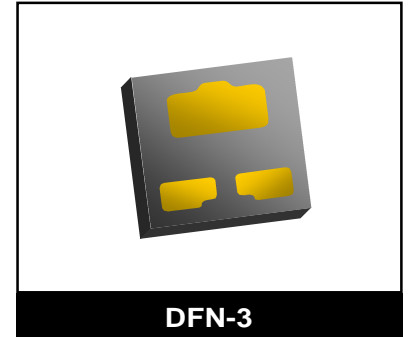
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 μ s - Level 2(Line-Ground) & Level 3(Line-Line)

FEATURES

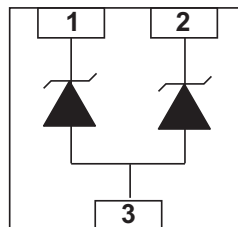
- ✓ ESD Protection > 40 kilovolts
- ✓ 100 Watts Peak Pulse Power per Line ($t_p = 8/20\mu$ s)
- ✓ Low Clamping Voltage
- ✓ Available in 3V & 5V
- ✓ Bidirectional Configuration
- ✓ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ✓ DFN-3 Package
- ✓ Available in Lead-Free Nickel-Paladium-Gold Plating
- ✓ Solder Reflow Temperature:
 Nickel-Paladium-Gold (Ni/Pd/Au) - Sn/Ag/Cu, 96/3.5/0.5: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ Device Marking: Marking Code
- ✓ 8mm Tape and Reel Per EIA Standard 481


DFN-3

PIN CONFIGURATION



DSOT03C thru DSOT05C

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_A	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Peak Pulse Power (tp = 8/20µs) - See Figure 1	PP_P	100	W
Typical Forward Voltage @10mA, 300µs - Square Wave (Note 1)	V_F	1.2	V

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER (See Note 1)	DEVICE MARKING	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_P = 1A$ V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @8/20µs $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D µA	TYPICAL CAPACITANCE @0V, 1 MHz C pF
DSOT03C	3U	3.3	4.0	7.0	10.9V @ 10A	30	9
DSOT05C	5U	5.0	6.0	9.8	12.5V @ 2A	2	9

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

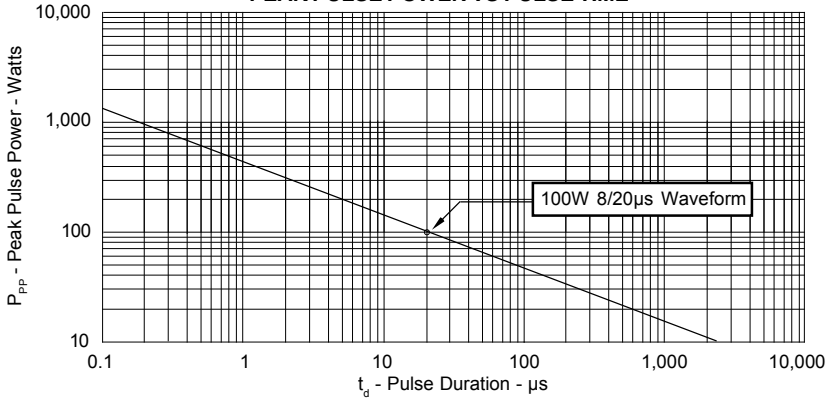


FIGURE 2
PULSE WAVE FORM

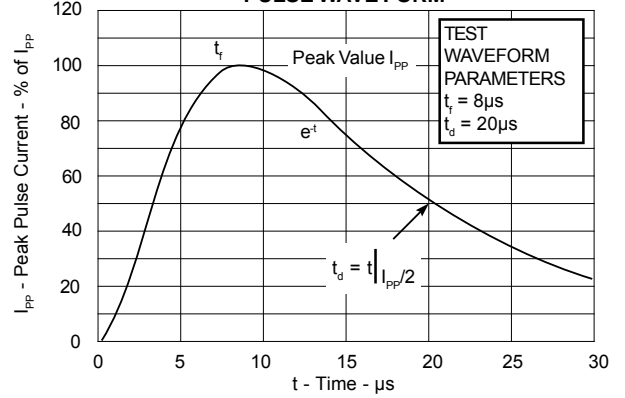
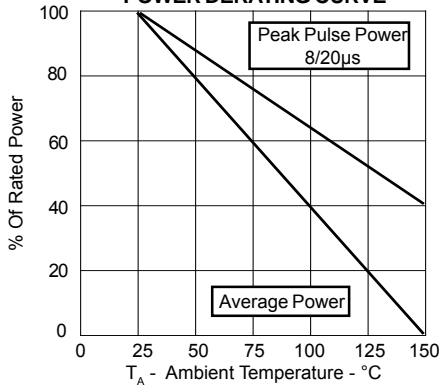


FIGURE 3
POWER DERATING CURVE



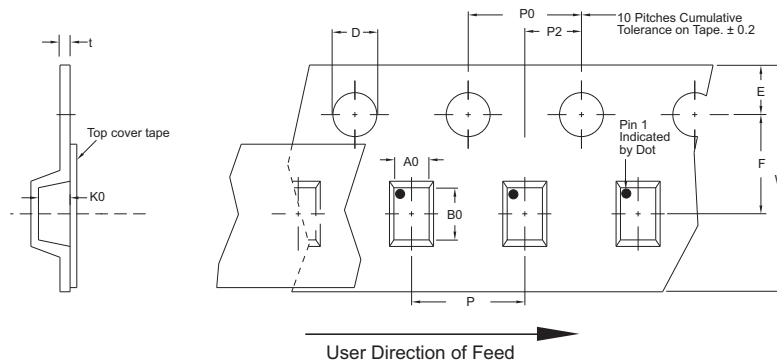
DSOT03C thru DSOT05C

DFN-3 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE & MOUNTING PAD		PACKAGE DIMENSIONS				
		MILLIMETERS		INCHES		
		DIM	MIN	MAX	MIN	MAX
		A	1.14	1.24	0.045	0.049
		B	0.025	0.076	0.001	0.003
		C	0.457	0.559	0.018	0.022
		D	1.14	1.24	0.045	0.049
		L1	0.610	0.711	0.024	0.028
		L2	0.610	0.711	0.024	0.028
		L3	0.30x0.178	0.406x0.279	0.012x0.007	0.016x0.011
		L4	0.787x0.432	0.889x0.533	0.031x0.017	0.035x0.021
		G1	0.965	1.067	0.038	0.042
		G2	0.610	0.711	0.024	0.028
		NOTES 1. Dimensioning and tolerances per ANSI Y14.5M, 1985. 2. Controlling dimension in inches. 3. Pin 3 is the cathode (Unidirectional Only) 4. Dimensions are exclusive of mold flash and metal burrs.				
		TAPE & REEL ORDERING NOMENCLATURE 1. Surface mount product is taped and reeled in accordance with EIA 481. 2. Suffix-T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., DSOT05C-T7. 3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., DSOT05C-T13. 4. Suffix - LF = Lead-Free, i.e., DSOT05C-LF-T7.				
		Outline & Dimensions: Rev 0 - 5/07, 06073				

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")/330mm(13")	8mm	1.38± 0.10	1.38± 0.10	0.62 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25



COPYRIGHT © ProTek Devices 2007.

SPECIFICATIONS: ProTek reserves the right to change the electrical and or mechanical characteristics described herein without notice (except JEDEC).

DESIGN CHANGES: ProTek reserves the right to discontinue product lines without notice, and that the final judgement concerning selection and specifications is the buyer's and that in furnishing engineering and technical assistance, ProTek assumes no responsibility with respect to the selection or specifications of such products.

ProTek Devices
 2929 South Fair Lane, Tempe, AZ 85282
 Tel: 602-431-8101 Fax: 602-431-2288
 E-Mail: sales@protekdevices.com
 Web Site: www.protekdevices.com