

Features

- Low Operating Voltage
- Low Clamping Voltage
- Ultra Low Leakage: nA Level
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

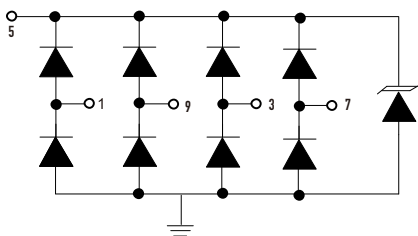
Maximum Ratings

IEC61000-4-2 (ESD)	Air	±30KV
	Contact	±30KV
Peak Pulse Current (8/20µs)	I _{PP}	25A
Peak Pulse Power (8/20µs) ^(Note2)	P _{PK}	375W
Operating Junction Temperature Range	T _J	-55°C to +125°C
Storage Temperature Range	T _{STG}	-55°C to +150°C

Note :

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Non-repetitive current pulse 8/20 µs exponential decay waveform according to IEC61000-4-5.

Internal Structure



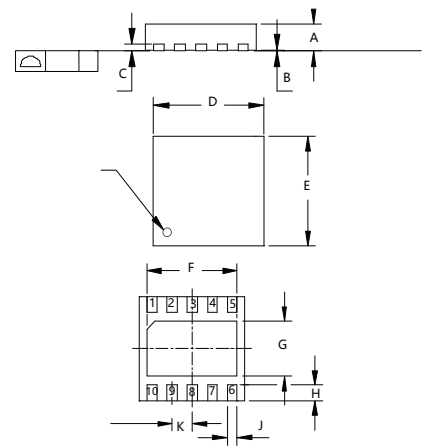
Marking Code



Device marking code: 2504N
Date code: YYWW
Pin1: Dot denotes

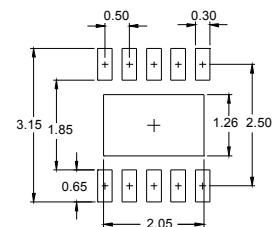
ESD Protection Device

DFN2626-10

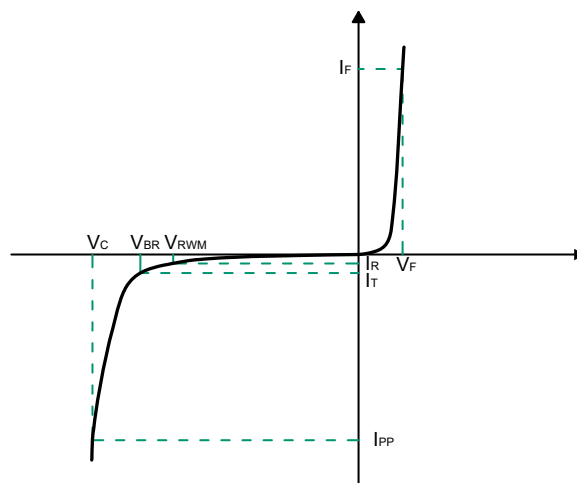


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.020	0.024	0.50	0.60	
B	0.000	0.002	0.00	0.05	
C	0.007		0.17		TYP.
D	0.098	0.106	2.50	2.70	
E	0.098	0.106	2.50	2.70	
F	0.079	0.089	2.00	2.25	
G	0.044	0.054	1.11	1.36	
H	0.012	0.016	0.30	0.40	
J	0.008	0.012	0.20	0.30	
K	0.020		0.50		TYP.

SUGGESTED SOLDER PAD LAYOUT (mm)



Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ VRWM
V_{BR}	Breakdown Voltage @ IT
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ IPP
V_{TRIG}	Reverse Trigger Voltage
I_{TRIG}	Reverse Trigger Current
V_{HOLD}	Reverse Holding Voltage
I_{HOLD}	Reverse Holding Current
C_J	Junction Capacitance



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				2.5	V
Punch-Through Voltage	V_{PT}	$I_{PT}=2\mu A$	2.7			V
Snap-Back Voltage	V_{SB}	$I_{SB}=50mA$	2			V
Reverse Leakage Current	I_R	$V_{RWM}=2.5V$			0.2	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP}=1A, t_p=8/20\mu s$ Any I/O to GND			4.5	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=10A, t_p=8/20\mu s$ Any I/O to GND			7.5	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=25A, t_p=8/20\mu s$ Any I/O to GND			15	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$ Between I/O pins		2.0		pF
Junction Capacitance	C_J	$V_R=0V, f=1MHz$ Any I/O to GND		3.8	5	pF

Note :

1.Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

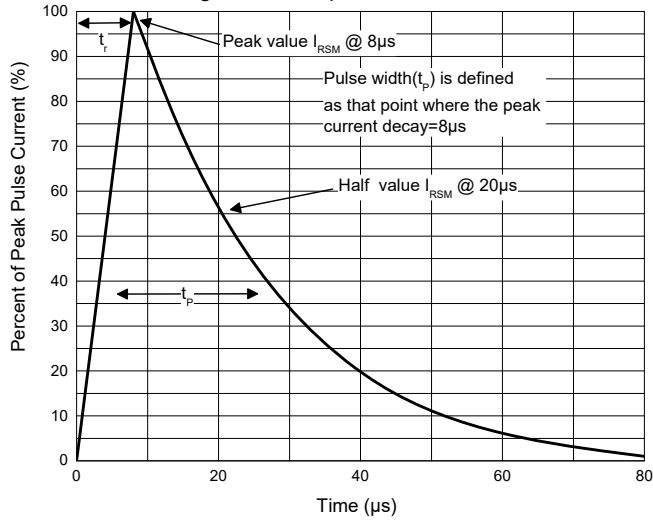


Fig. 2 - Non-Repetitive Peak Pulse Power

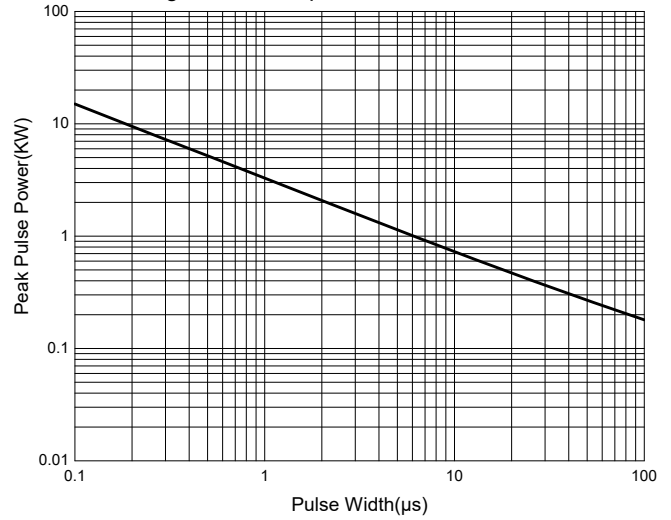


Fig. 3 - Capacitance Characteristics

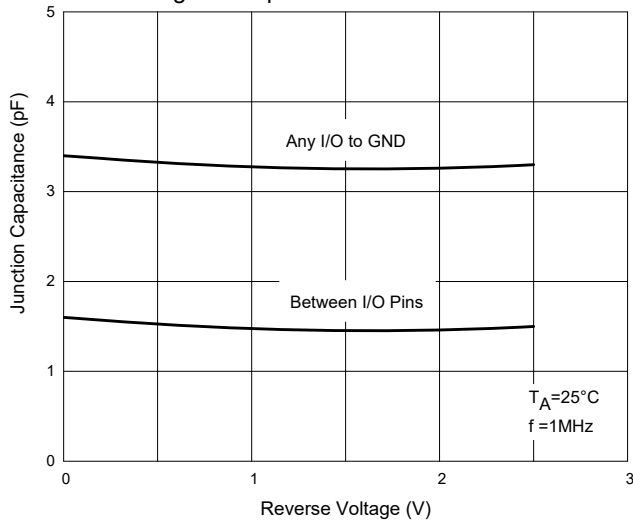


Fig. 4 - Clamping Voltage Characteristics

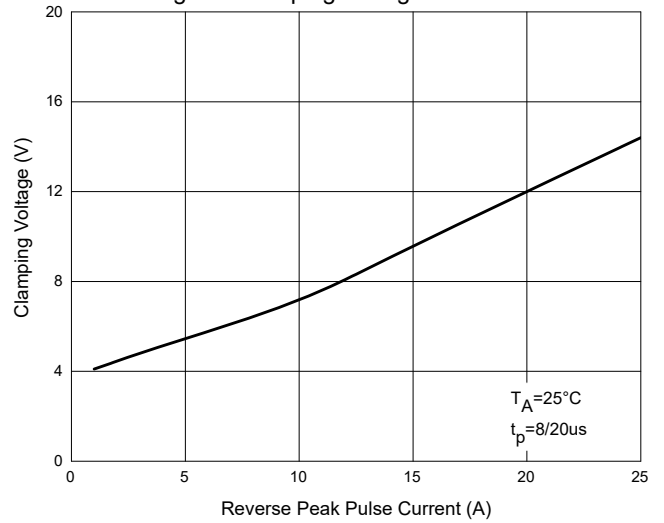
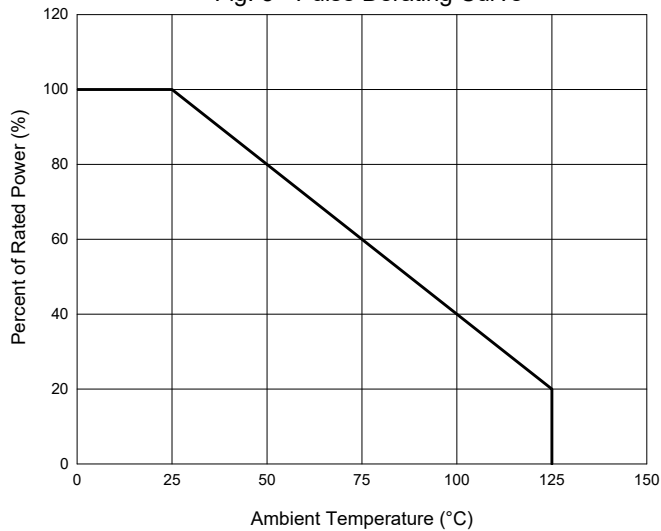


Fig. 5 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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