SIRECT ELECTRONIC

N055AT56

50W 5-Line Array Surface Mount TVS Diodes

FEATURES

- Protects five I/O lines
- 5V working voltage
- Transient protection for data, signal, and Vcc bus to IEC 61000-4-2 (ESD) & IEC 61000-4-4 (EFT)
- Low Leakage Current
- Solid state silicon avalanche technology
- Low operating and clamping voltages

MECHANICAL DATA

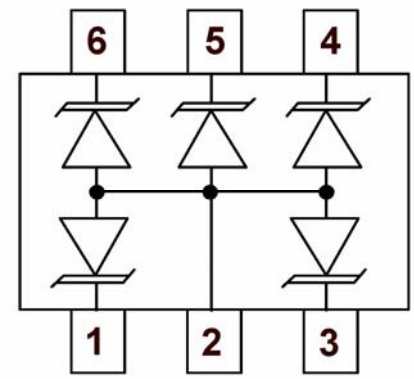
- JEDEC SOT-563 package
- Solder temperature: 265°C for 10 seconds
- Readily solderable terminals

APPLICATION

- Cordless phones
- Cellular phones & accessories
- Audio/Video inputs
- Portable electronics (Digital Cameras, MP3 Players, etc.)
- Networks

The **N505AT56 Series** of transient voltage suppressors are designed to protect components which are connected to multi-line data and transmission lines from over voltages caused by electrostatic discharge (ESD), electrical fast transients (EFT), and induced lightning.

SCHEMATIC & PIN CONFIGURATION



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp = 8 x 20 μs)	P_{pk}	40	W
Operating Temperature	T_j	-55 to +150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage	V_{BR}	I_t = 1mA	6.15	6.5	7.15	V
Clamping Voltage	V_C	I_{pp}=1A[1]	-	-	9	V
Maximum Peak Pulse Current	I_{pp}	t_p = 8/20μs	-	-	3.5	A
Reverse Leakage Current	I_R	V_{RWM} = 5V	-	10	35	μA
Diode Capacitance	C_D	V_R = 0V, f = 1MHz	-	22	28	pF
Differential Resistance	r_{diff}	I_r = 1mA	-	20	100	Ohms

Note:

1. *Clamping voltage values are based upon an industry standard 8 x 20μs peak pulse current (Ipp) waveform.*

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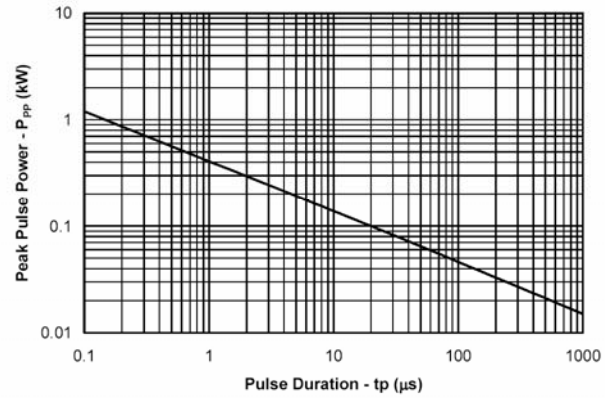
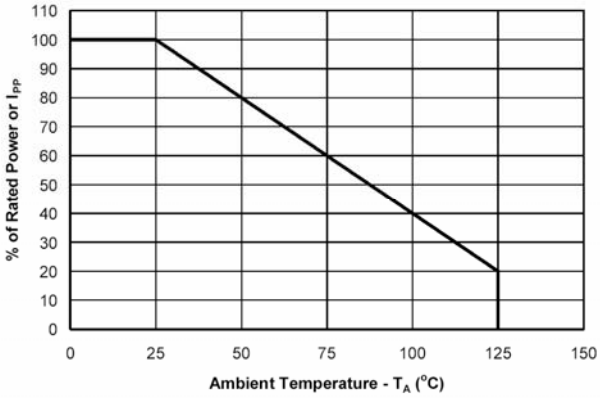
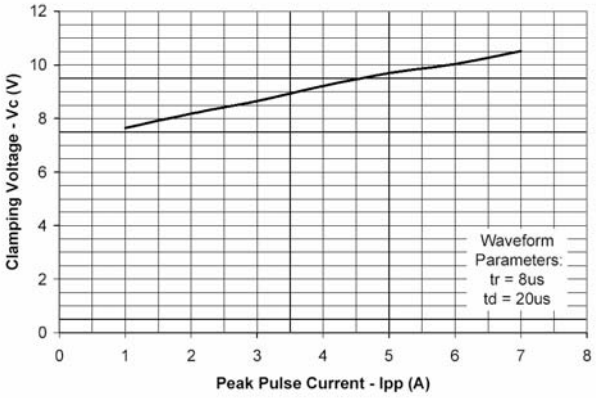
Non-Repetitive Peak Pulse Power vs. Pulse Time



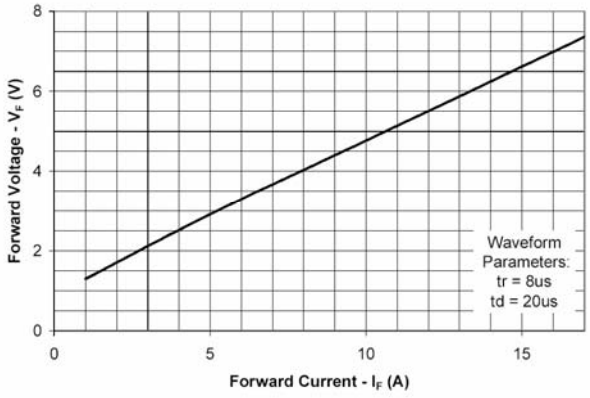
Power Derating Curve



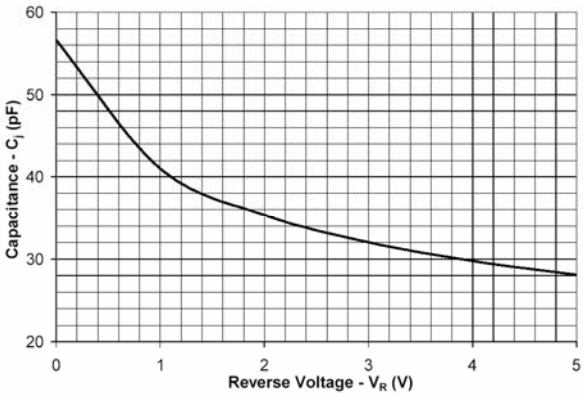
Clamping Voltage vs. Peak Pulse Current



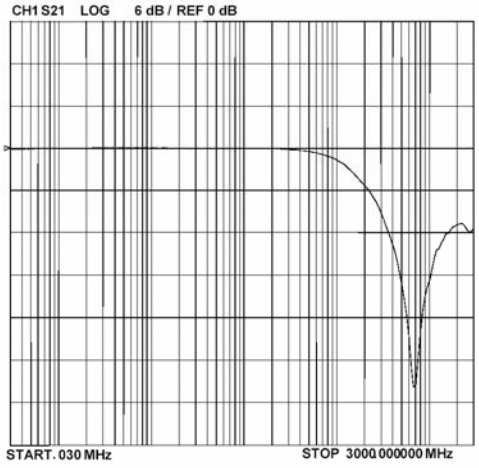
Forward Voltage vs. Forward Current



Junction Capacitance vs. Reverse Voltage



Insertion Loss S21



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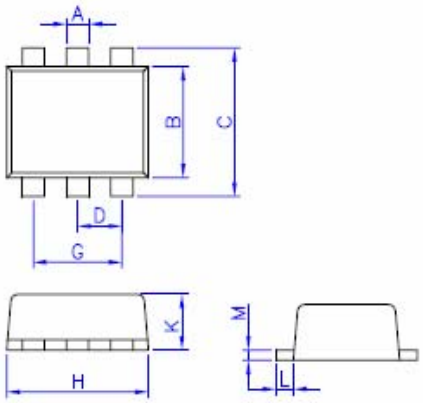
PACKAGE DIMENSIONS



SOT-563			
Dimension	Min.	Max.	Typ.
A	0.15	0.30	0.25
B	1.10	1.25	1.20
C	1.55	1.70	1.60
D		0.50	
G	0.90	1.10	1.00
H	1.50	1.70	1.60
K	0.56	0.60	0.60
L	0.10	0.30	0.20
M	0.10	0.18	0.11
ALL Dimension in mm			

MARKING CODE