产品规格书
Product Specification

TVS静电保护器件
Low-Capacitance TVS Diode Array for ESD Protection

型 号（Part Number）：HM0524

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版本 Version	编写 Compile	审核 Auditing	批准 Authorize
V2.0			

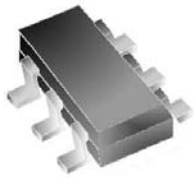
Low-Capacitance TVS Diode Array

一、简介 Introduction

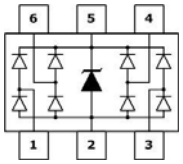
The **HM0524** is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD. This series has been specifically designed to protect sensitive components which are connected to data and transmission lines from overvoltage caused by ESD(electrostatic discharge), and EFT (electrical fast transients).

二、特点 Features

- Small Package
- Low Clamping Voltage
- Low Leakage
- Ultra Low capacitance (<1.0pF) for high-speed interfaces
- No insertion loss to 1.0GHz
- Response Time is < 1 ns
- Meets MSL 1 Requirements
- RoHS compliant
- IEC61000−4−2 Level 4 ESD Protection



SOT-23-6L



三、主要应用 Main applications

- High Speed Line :USB1.0/2.0, VGA, DVI, SDI,
- Serial and Parallel Ports
- Notebooks, Desktops, Servers
- Projection TV

四、保护等级 Protection solution to meet

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 12A (8/20μs 350W)

五、极限参数 Maximum Ratings (Tamb=25℃ Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
ESD Rating per IEC61000-4-2: Contact Air		8 15	KV KV
Lead Soldering Temperature	TL	260 (10 sec.)	℃
OperatingTemperature Range	TJ	-55 ~ 150	℃
Storage Temperature Range	TSTG	-55 ~ 150	℃
Lead Solder Temperature − Maximum (10 Second Duration)	TL	260	℃

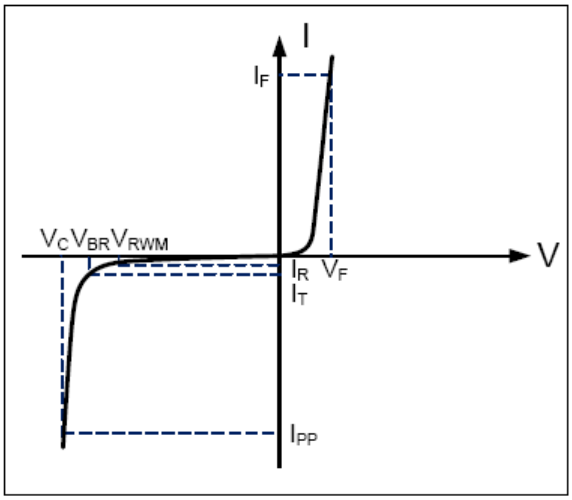
Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied,damage may occur and reliability may be affected.
**Other voltages may be available upon request.*

六、电参数 Electrical information (Tamb=25℃)

Device	VRWM	IR	VBR	Capacitance
	(V)	@ VRWM	@ 1MA	@VR=0V,1MHz
		(μA)Max	Typ.(V)	Max.(pF)
HM0524	5.0	1	7.5	1.0

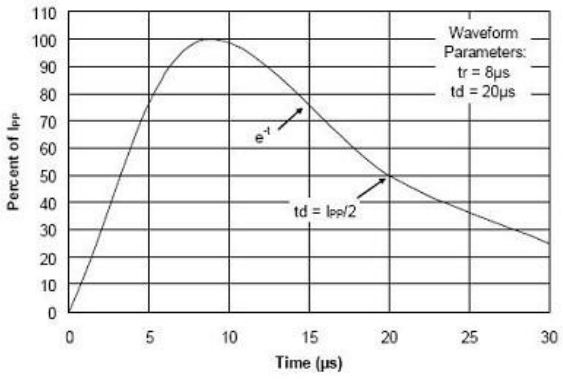
Junction capacitance is measured in VR= 0V, 1MHz

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum 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

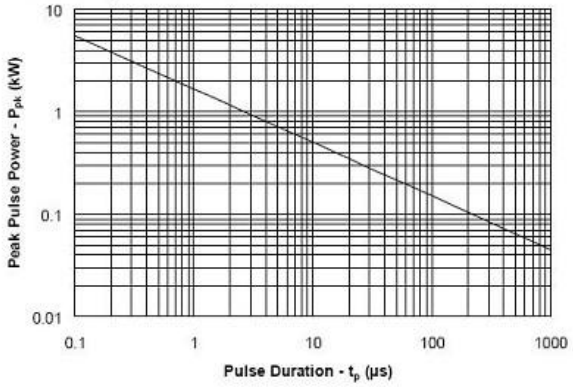


七、典型电特性曲线 Typical electrical characters applications

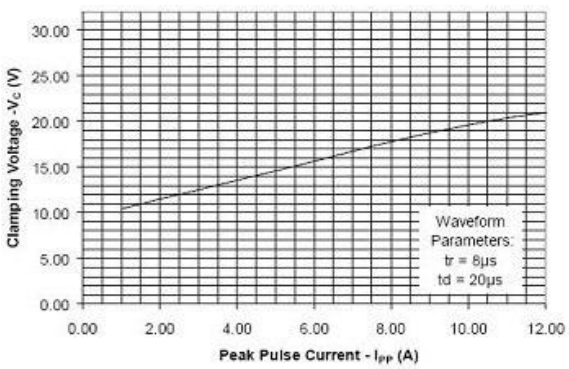
Pulse Waveform



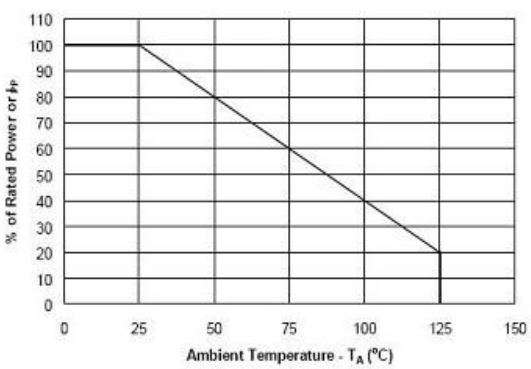
Non-Repetitive Peak Pulse Power vs. Pulse Time



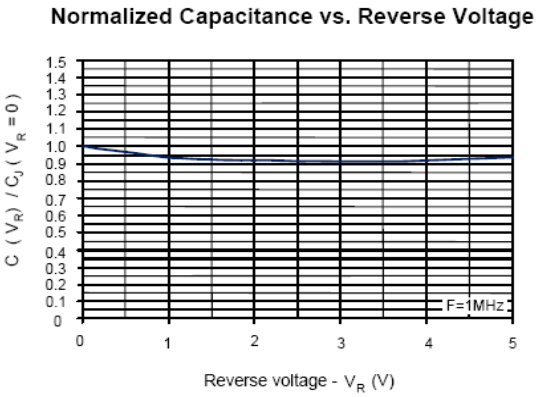
Clamping Voltage vs. Peak Pulse Current

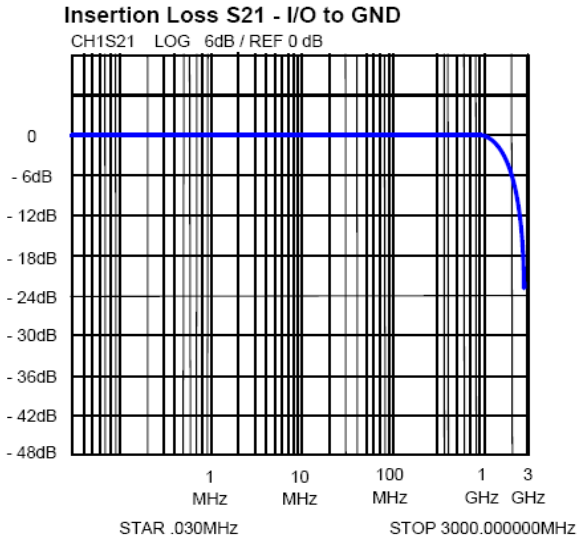


Power Derating Curve



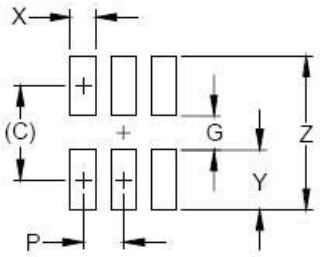
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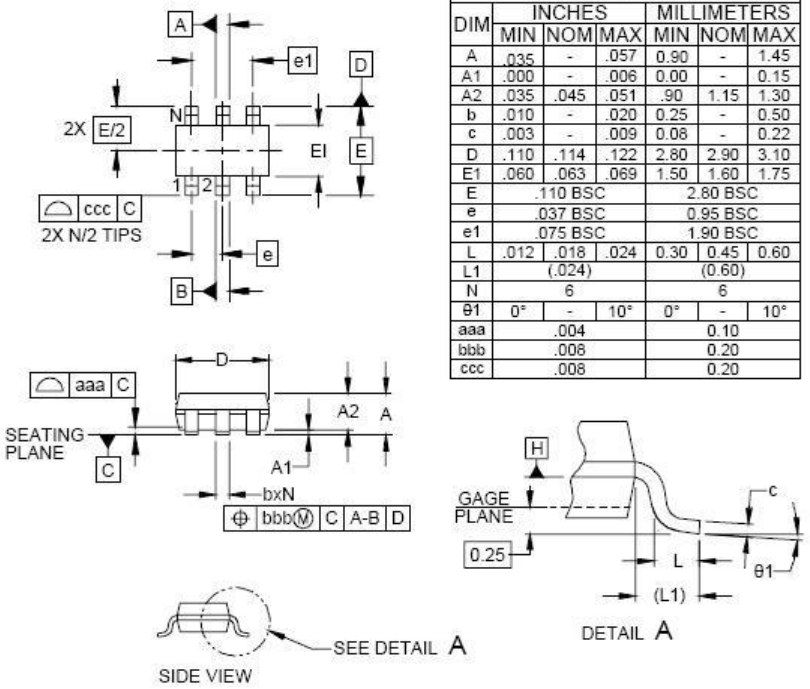


八、外观尺寸 Shape and Dimensions

▼ SOLDERINGFOOTPRINT



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.098)	(2.50)
G	.055	1.40
P	.037	0.95
X	.024	0.60
Y	.043	1.10
Z	.141	3.60



DIMENSIONS						
DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.035	-	.057	0.90	-	1.45
A1	.000	-	.006	0.00	-	0.15
A2	.035	.045	.051	.90	1.15	1.30
b	.010	-	.020	0.25	-	0.50
c	.003	-	.009	0.08	-	0.22
D	.110	.114	.122	2.80	2.90	3.10
E1	.060	.063	.069	1.50	1.60	1.75
E	.110 BSC			2.80 BSC		
e	.037 BSC			0.95 BSC		
e1	.075 BSC			1.90 BSC		
L	.012	.018	.024	0.30	0.45	0.60
L1	(.024)			(0.60)		
N	6			6		
θ1	0°	-	10°	0°	-	10°
aaa	.004			0.10		
bbb	.008			0.20		
ccc	.008			0.20		

九、订购信息 How To Order

Device	Qty per Reel	Reel Size
HM0524	3000	7 Inch