

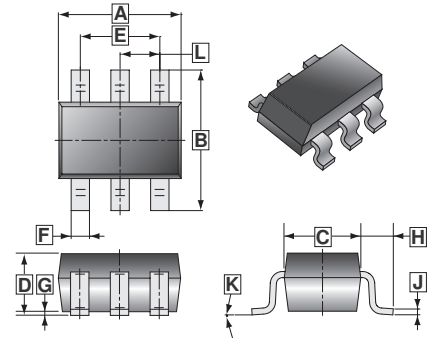
RoHS Compliant Product
A suffix of "-C" specifies halogen and lead-free

DESCRIPTION

The KS05VL04 is a transient voltage suppressors (TVS) which provide a very high level protection for sensitive electronic components that may be subjected to electrostatic discharge (ESD). It is particularly well-suited for cellular phones, PMP, MID, PDA, digital cameras and other electronic equipments.

The KS05VL04 is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 level 4 ($\pm 15\text{KV}$ air, $\pm 8\text{KV}$ contact). Using the MILSTD-883 (Method 3015) specification of Human Body Model (HBM), the device provides protection to greater than $\pm 10\text{kV}$.

TSOP-6



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	0	0.10
B	2.60	3.00	H	0.60	REF.
C	1.40	1.80	J	0.12	REF.
D	1.10	MAX.	K	0°	10°
E	1.90	REF.	L	0.95	REF.
F	0.30	0.50			

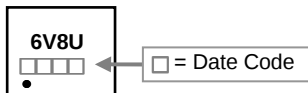
APPLICATIONS

- Digital Cameras
- Portable Instrumentation
- Notebooks, Desktops, and Servers
- Personal Digital Assistants (PDAs)
- Cell phone handsets and accessories

FEATURES

- low clamping voltage
- Low leakage current
- Small package

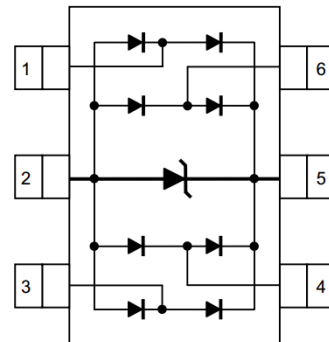
MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
TSOP-6	3K	7 inch

Top View



Schematic And Pinning Diagram

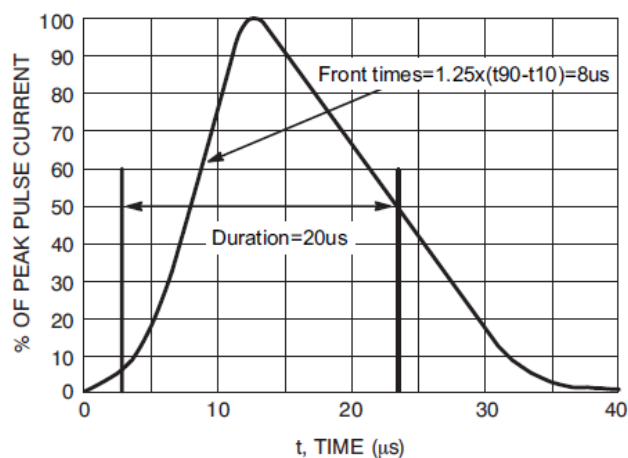
ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Rating		Symbol	Value	Unit
IEC 61000-4-2 (ESD)	Air contact	V_{ESD}	± 15	kV
	Contact discharge		± 8	
Peak pulse power ($t_p=8/20\mu\text{s}$)		P_{PK}	75	W
Peak pulse current ($t_p=8/20\mu\text{s}$)	$V_{\text{DD}}-\text{GND}$	I_{PP}	5	A
	I/O-GND		4	
Storage temperature range		T_J, T_{STG}	150, -55 ~ 150	$^\circ\text{C}$
Lead temperature		T_L	260	$^\circ\text{C}$

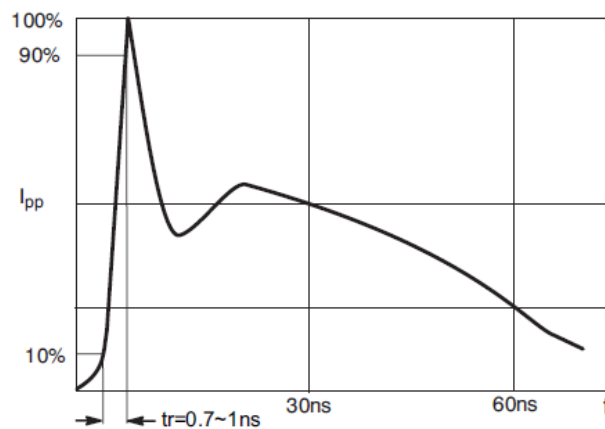
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reveres maximum working voltage	V_{RWM}		-	-	5	V
Reveres leakage current	I_R	$V_{RWM}=5\text{V}$	-	-	1	μA
Reveres breakdown voltage	V_{BR}	$I_T=1\text{mA}$, I/O-GND	6.5	8	8.8	V
		$I_T=1\text{mA}$, V_{DD} -GND	5.8	7.3	8.1	
Forward voltage	V_F	$I_F=10\text{mA}$	0.5	0.7	1	V
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$	-	-	12	V
		$I_{PP}=4\text{A}$, $t_p=8/20\mu\text{s}$	-	-	20	V
Junction capacitance	C_J	I/O-GND	-	0.7	0.8	pF
		I/O-I/O	-	0.35	-	pF

RATINGS AND CHARACTERISTICS CURVES



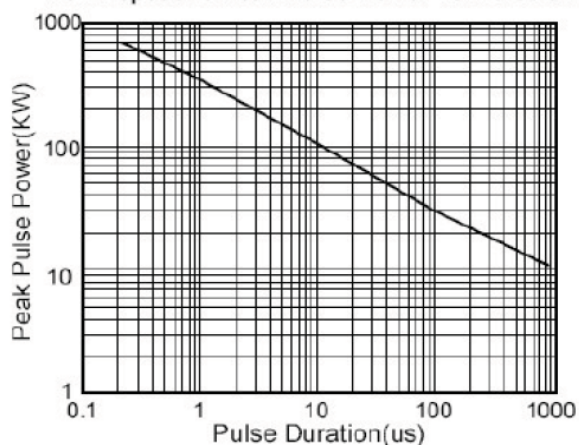
8/20us waveform



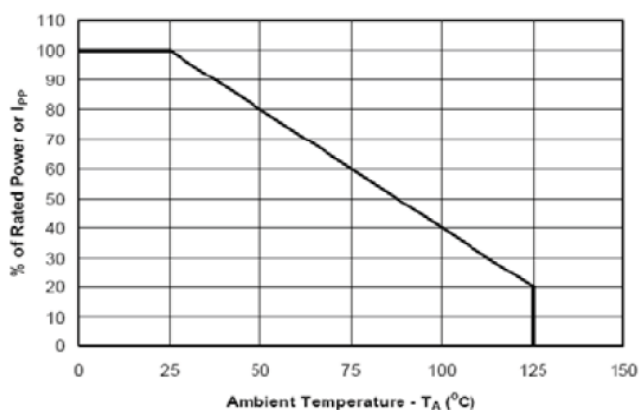
IEC61000-4-2 waveform

RATINGS AND CHARACTERISTICS CURVES

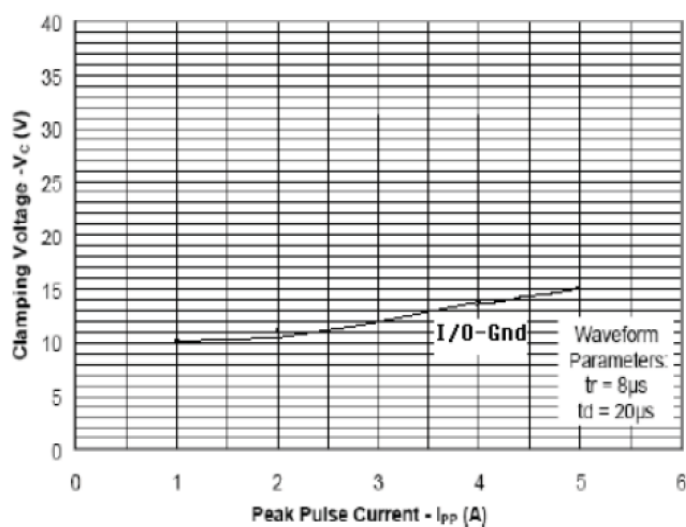
Non-Repetitive Peak Pulse Power vs. Pulse time



Power Derating Curve



Clamping Voltage vs. Peak Pulse Current



Forward Voltage vs. Forward Current

