

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

DESCRIPTION

The KS05BL4 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 KS05BL4 is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 level 4 ±15KV air, ±8KV contact). Using the MILSTD-883 (Method 3015) specification of Human Body Model (HBM), the device provides protection to greater than ±20kV.

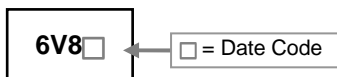
APPLICATIONS

- 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



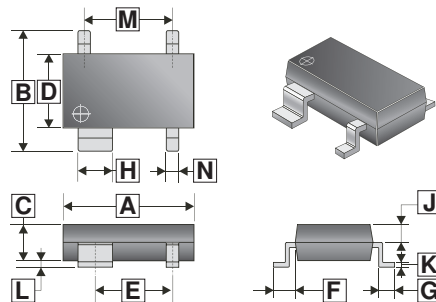
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-143	3K	7 inch

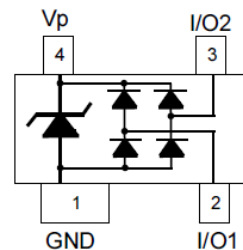
ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD)	Air contact	±15	kV
	Contact discharge	±8	
Peak pulse power (tp=8/20us)	P _{PK}	450	W
Peak pulse current (tp=8/20us)	I _{PP}	20	A
Storage temperature range	T _J , T _{STG}	150, -55 ~ 150	°C
Lead temperature	T _L	260	°C

SOT-143



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.00	H	0.75	0.90
B	2.25	2.55	J	-	-
C	0.90	1.10	K	0.08	0.16
D	1.20	1.40	L	-	0.10
E	1.60	2.00	M	1.90	REF.
F	0.57	REF.	N	0.30	0.50
G	0.40	REF.			

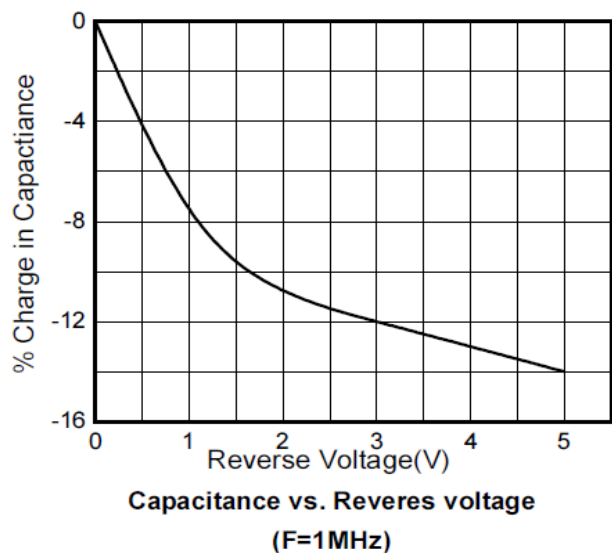
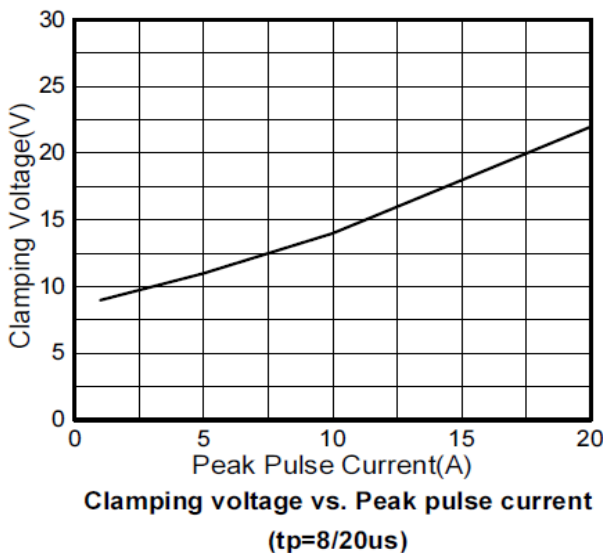
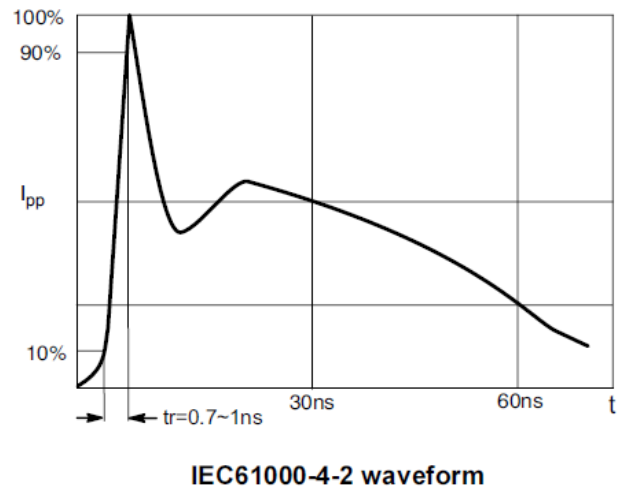
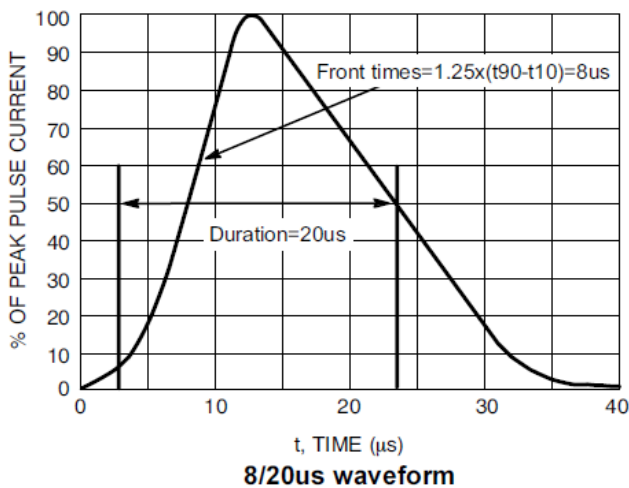


Pin configuration (Top view)

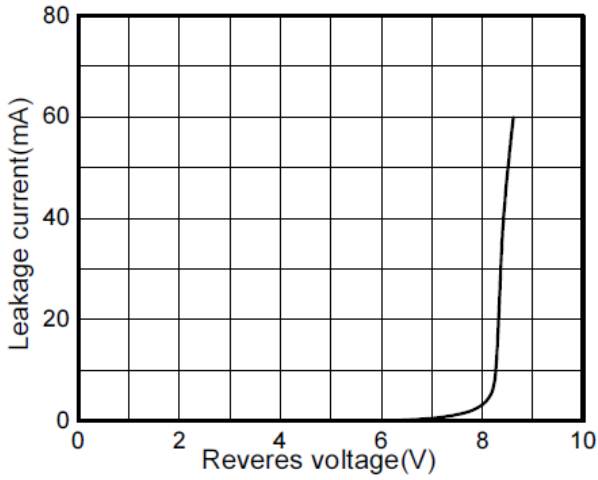
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reveres maximum working voltage	V_{RWM}	$I_R=1\mu\text{A}$	-	5.0	5.5	V
Reveres leakage current	I_R	$V_{RWM}=5\text{V}$	-	-	1	μA
Reveres breakdown voltage	V_{BR}	$I_T=1\text{mA}$	6	8.2	-	V
Forward voltage	V_F	$I_F=10\text{mA}$	-	0.7	1	V
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$	-	8.8	10	V
		$I_{PP}=20\text{A}$, $t_p=8/20\mu\text{s}$	-	20	22	V
Junction capacitance	C_J	Between I/O pins to GND $f=1\text{MHz}$, $V_R=0$	-	1.2	1.5	pF
		Between I/O pins $f=1\text{MHz}$, $V_R=0$	-	0.7	-	

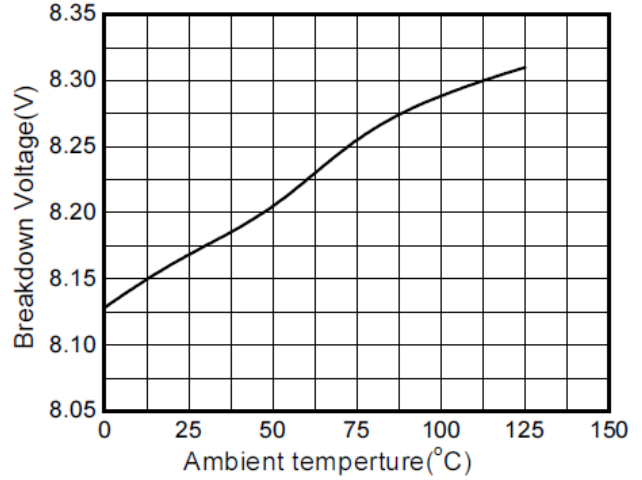
RATINGS AND CHARACTERISTICS CURVES



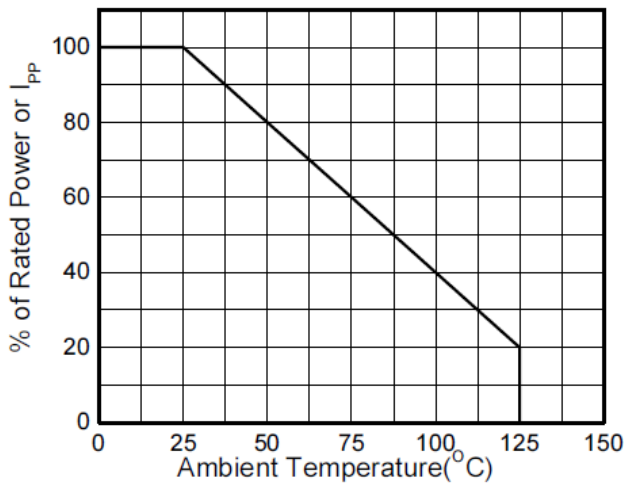
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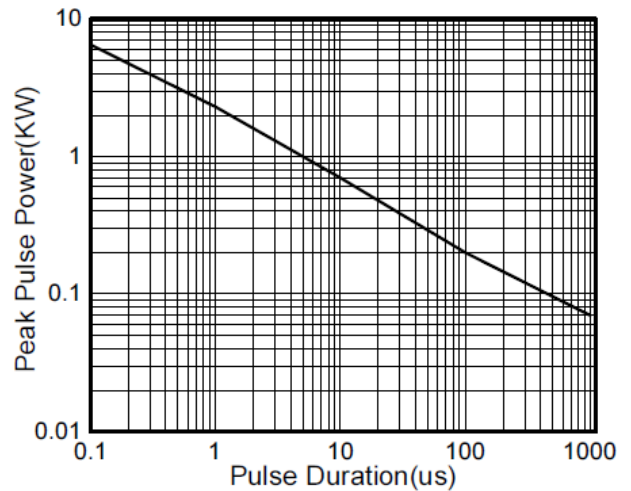
Leakage current vs. Reverse voltage



Breakdown voltage vs. Temperature



Power derating vs. Temperature



Non-Repetitive Peak Pulse Power vs. Pulse time