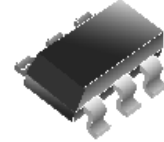


RoHS Compliant Product
A suffix of "-C" specifies halogen and lead-free

FEATURES

- Uni-Directional ESD Protection of Five Lines
- Low Reverse Stand-Off Voltage: 5V
- Low Reverse Clamping Voltage
- Low Leakage Current
- Fast Response Time
- IEC 61000-4-2 Level 4 ESD Protection
- JESD22-A114-B ESD Rating of Class 3B Per Human Body Model

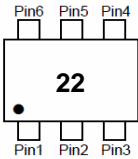
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APPLICATIONS

- Computers and peripherals
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics
- Other electronics equipments communication systems

MARKING

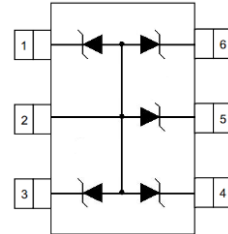


PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-363	3K	7 inch

ORDER INFORMATION

Part Number	Type
KS05K5-C	Lead (Pb)-free and Halogen-free



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

Parameter		Symbol	Ratings	Unit	
IEC 61000-4-2 ESD Voltage	Air	V _{ESD} ¹	±25	KV	
	Contact		±25		
	JESD22-A114-B ESD Voltage		Per Human Body Model		±16
	ESD Voltage		Machine Model		±0.4
Peak Pulse Power (8/20µs)		P _{PP}	60	W	
Peak Pulse Current (8/20µs)		I _{PP}	5	A	
Lead Solder Temperature – Maximum (10 Second Duration)		T _L	260	°C	
Operation Junction and Storage Temperature Range		T _J , T _{STG}	-55~150		

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Working Voltage	V_{RWM}	-	-	5	V	
Breakdown Voltage	V_{BR}	6	-	7.2	V	$I_T=1\text{mA}$
Reverse Leakage Current	I_R	-	-	5	μA	$V_{RWM}=5\text{V}$
Forward voltage	V_F	-	-	0.9	V	$I_F=10\text{mA}$
Clamping Voltage (8/20 μs)	V_C	-	-	12	V	$I_{PP}=5\text{A}$
Junction Capacitance	C_J	-	30	-	pF	$V_R=0\text{V}$, $f=1\text{MHz}$

Note:

1. Device stressed with ten non-repetitive ESD pulses, per channel (I/O to GND, VCC to GND).

ESD STANDARDS COMPLIANCE

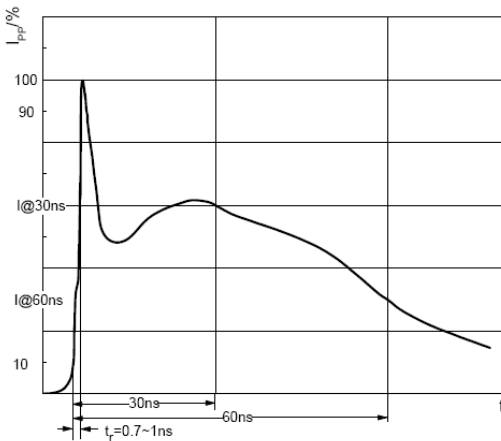
IEC61000-4-2 Standard

Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

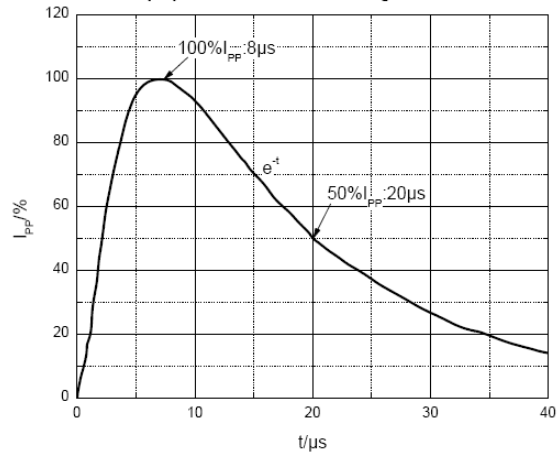
JESD22-A114-B Standard

ESD Class	Human Body Discharge V
0	0~249
1A	250~499
1B	500~999
1C	1000~1999
2	2000~3999
3A	4000~7999
3B	8000~15999

ESD pulse waveform according to IEC61000-4-2

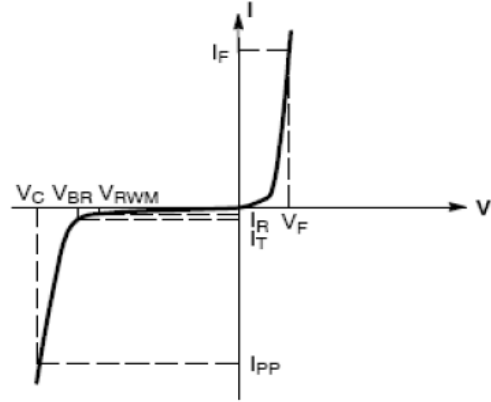


8/20 μs pulse waveform according to IEC 61000-4-5

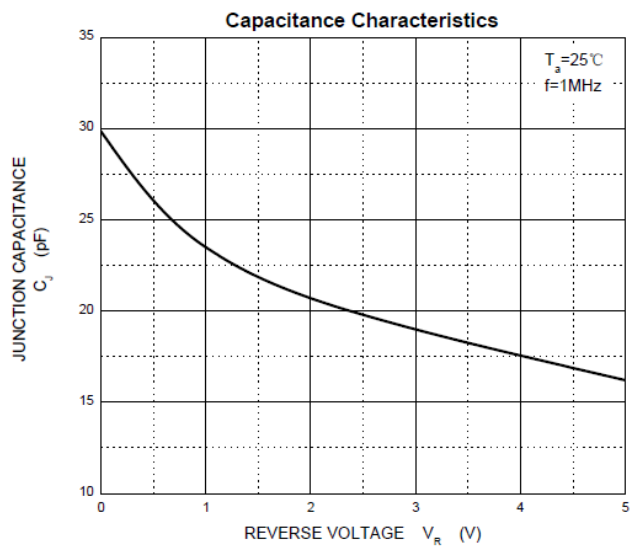
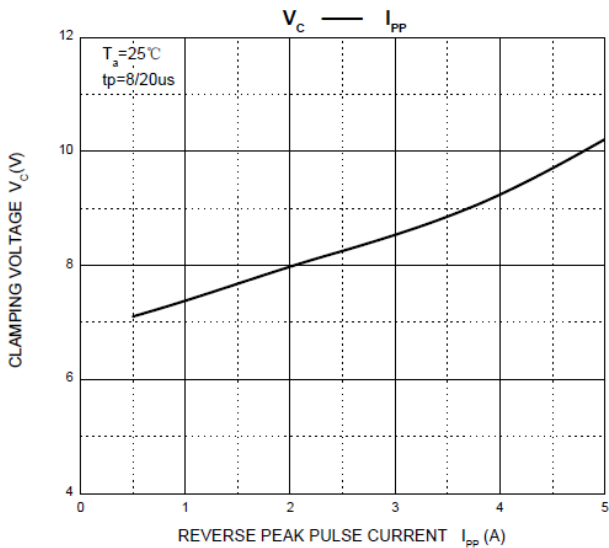
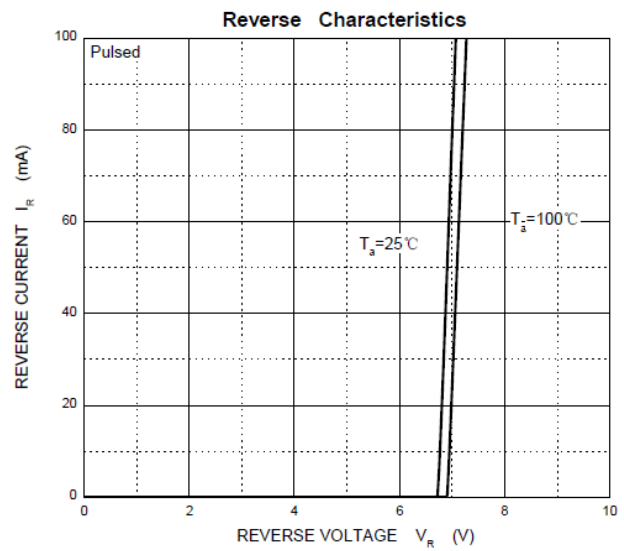
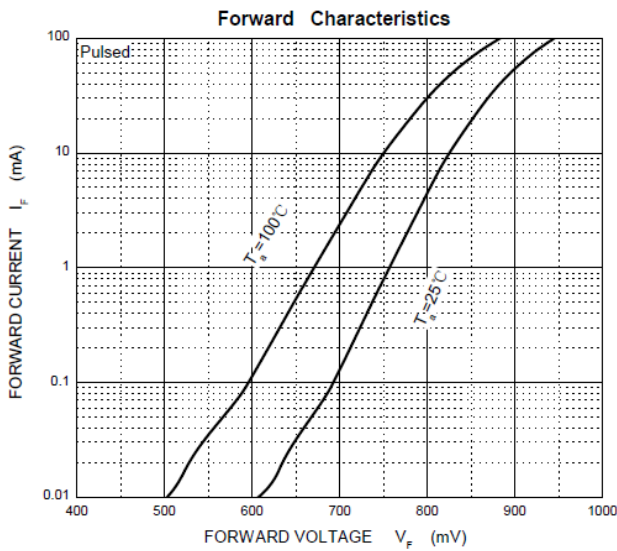


ELECTRICAL PARAMETER ($T=25^{\circ}\text{C}$)

Parameter	Symbol
Reverse Peak Pulse Current	I_{PP}
Clamping Voltage @ I_{PP}	V_C
Working Peak Reverse Voltage	V_{RWM}
Reverse Leakage Current @ V_{RWM}	I_R
Breakdown Voltage @ I_T	V_{BR}
Test Current	I_T
Forward Voltage	V_F
Forward Current @ I_F	I_F

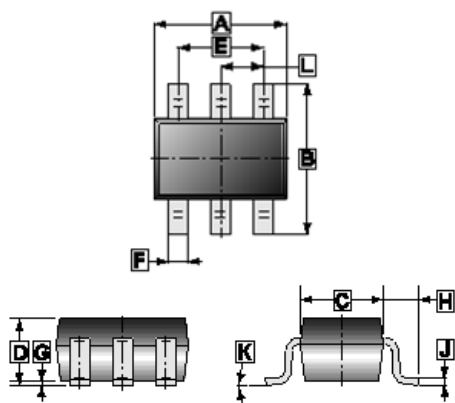


TYPICAL CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

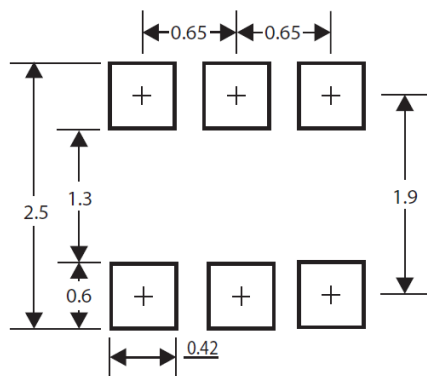
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REF.	Millimeter	
	Min.	Max.
A	1.80	2.20
B	1.80	2.45
C	1.15	1.35
D	0.70	1.10
E	1.30 REF.	
F	0.10	0.35
G	0.10 REF.	
H	0.525 REF.	
J	0.05	0.25
K	8°	
L	0.65 TYP.	

MOUNTING PAD LAYOUT

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*Dimensions in millimeters