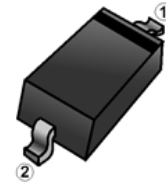


RoHS Compliant Product
A suffix of "-C" specifies halogen and lead-free

DESCRIPTION

The SDK05-C TVS diode is designed to replace multilayer varistors (MLVs) in portable applications such as cell phones, notebooks, and PDA's. It offers superior electrical characteristics such as low clamping voltage, low leakage current and high surge capability. It is designed to protect sensitive electronic components which are connected to power lines, from over-stress caused by ESD, EFT and Lighting.

SOD-323



FEATURES

- Transient protection for high-speed data lines
- Low leakage current
- Low clamping voltage
- Solid-state silicon-avalanche technology

MARKING

5H

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323	3K	7 inch



ORDER INFORMATION

Part Number	Type
SDK05-C	Lead (Pb)-free and Halogen-free

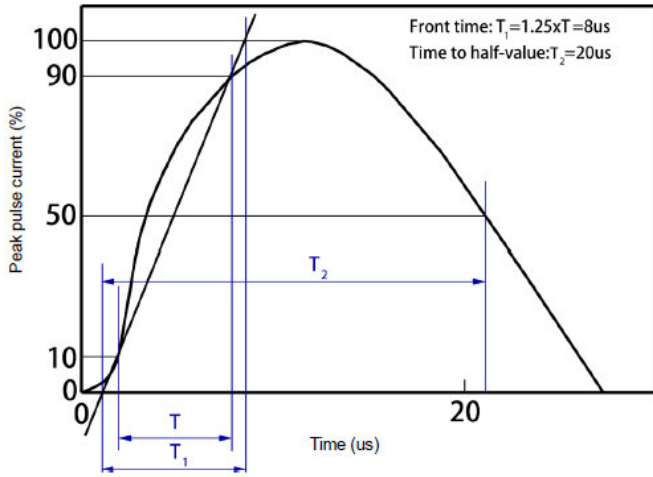
ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
ESD Rating per IEC61000-4-2	Air	±30	kV
	Contact	±30	
Peak Pulse Power @t _p =8/20µs	P _{PP}	2800	W
Peak Pulse Current @t _p =8/20µs	I _{PP}	140	A
Maximum Lead Solder Temperature @10sec	T _L	260	°C
Operating Junction & Storage Temperature Range	T _J , T _{STG}	-55~125, -55~150	°C

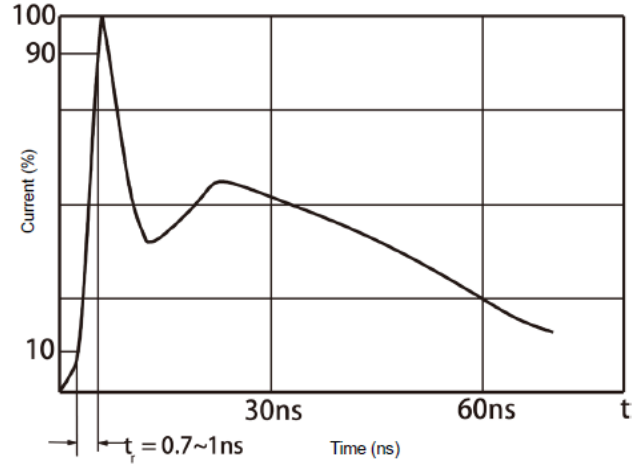
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Stand-off Voltage	V _{RWM}	-	-	5	V	
Breakdown Voltage	V _(BR)	6	7	8		I _T =1mA
Clamping Voltage @t _p =8/20µs	V _C	-	-	13		I _{PP} =50A
		-	-	17		I _{PP} =100A
		-	-	20	I _{PP} =140A	
Reverse leakage current	I _R	-	-	1	µA	V _{RWM} =5V
Junction Capacitance	C _J	-	980	-	pF	V _R =0V, f=1MHz

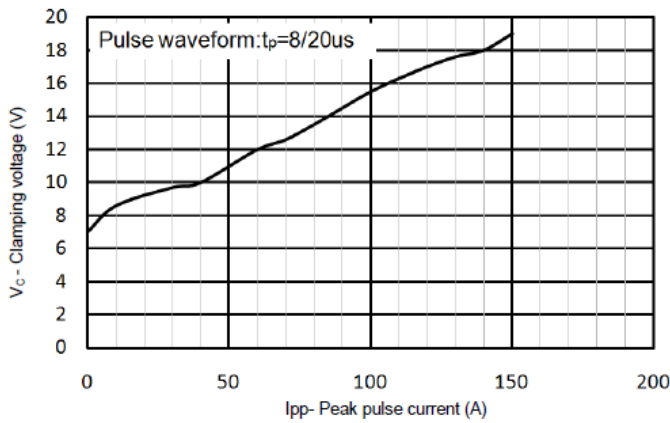
TYPICAL CHARACTERISTICS



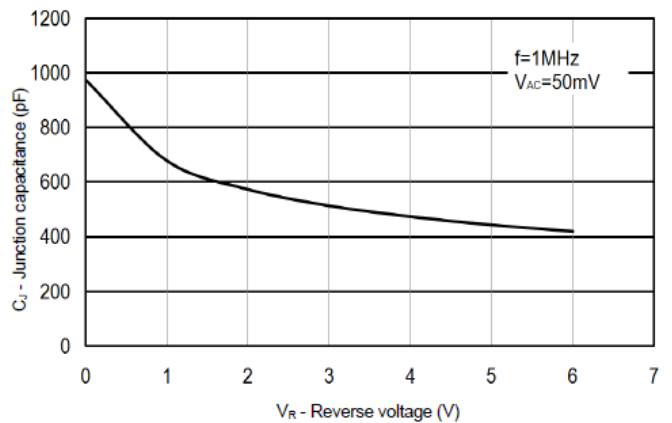
8/20 us waveform per IEC61000-4-5



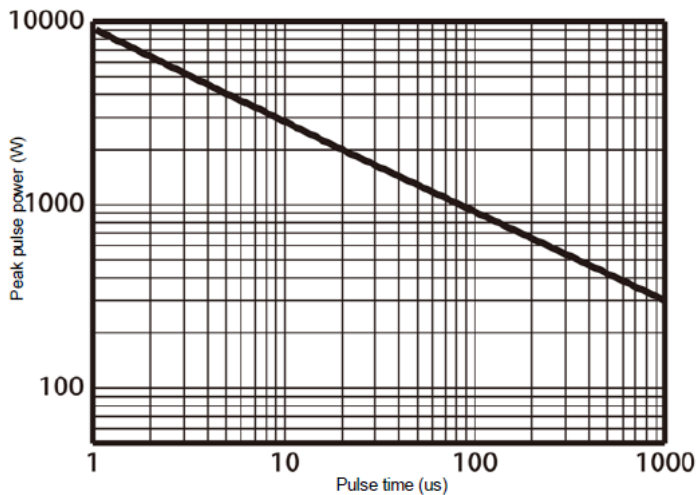
Contact discharge current waveform per IEC61000-4-2



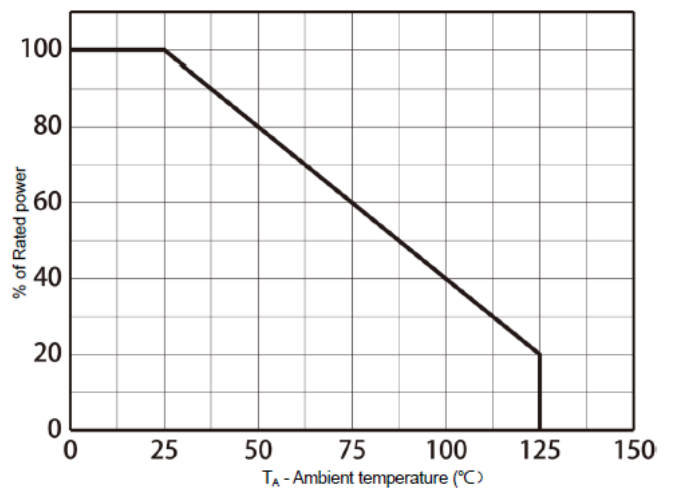
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage



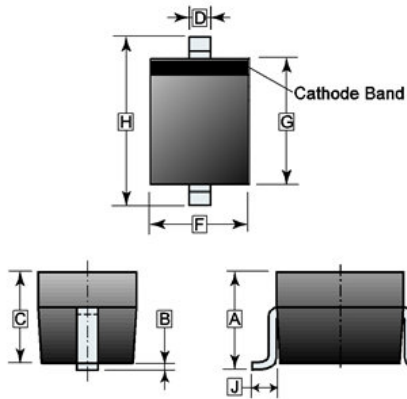
Non-repetitive peak pulse power vs. Pulse time



Power derating vs. Ambient temperature

PACKAGE OUTLINE DIMENSIONS

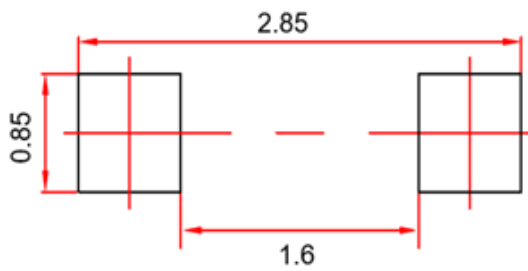
SOD-323



REF.	Millimeter	
	Min.	Max.
A	1.05 REF.	
B	0.07 REF.	
C	0.80	1.10
D	0.25	0.40
E	0.05	0.25
F	1.10	1.50
G	1.50	1.95
H	2.30	2.80
J	0.475 REF.	

MOUNTING PAD LAYOUT

SOD-323



*Dimensions in millimeters