Elektronische Bauelemente

SD05

350W, 5V

ESD Protection (Uni-Directional)

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

FEATURES

- 350 Watts Peak Pulse Power (t=8/20us)
- Small Package for Use in Portable Electronics
- Suitable Replacement for MLV's in ESD Protection Applications
- Protects One I/O or Power Line
- Low Clamping Voltage
- Low Leakage Current
- Solid-State Silicon-Avalanche Technology

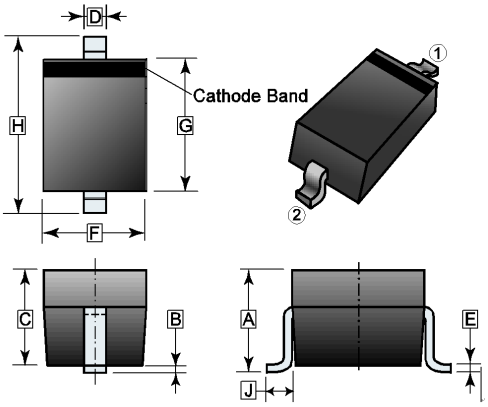
APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Pagers Peripherals
- Audio Line

MARKING

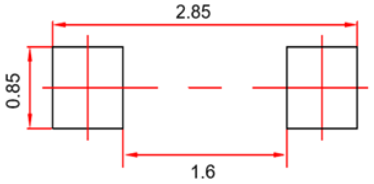
5D	05W

SOD-323



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

Mounting Pad Layout



*Dimensions in millimeters

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323	3K	7 inch

ORDER INFORMATION

Part Number	Type
SD05	Lead (Pb)-free
SD05-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 Model	V_{ESD}	±30	kV
	Contact Model		±30	
Peak Pulse Power [1]		P_{PP}	350	W
Peak Pulse Current [1]		I_{PP}	24	A
Maximum Lead Solder Temperature @10 Second Duration		T_L	260	°C
Junction & Storage Temperature Range		T_J, T_{STG}	150, -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	-	-	V	I_T=1mA
Clamping Voltage [1]	V_C	-	-	9.8	V	I_{PP}=1A
		-	-	15		I_{PP}=24A
Reverse Leakage Current	I_R	-	-	5	μA	V_{RWM}=5V
Junction Capacitance	C_J	-	300	-	pF	V_R=0V, f=1MHz

Note:

1. Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5.

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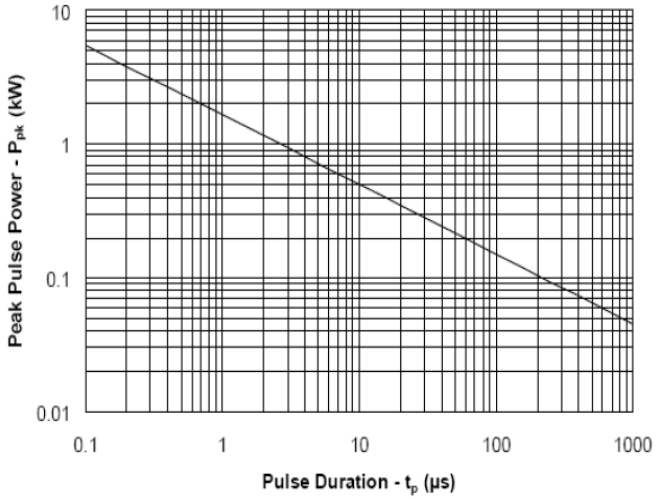
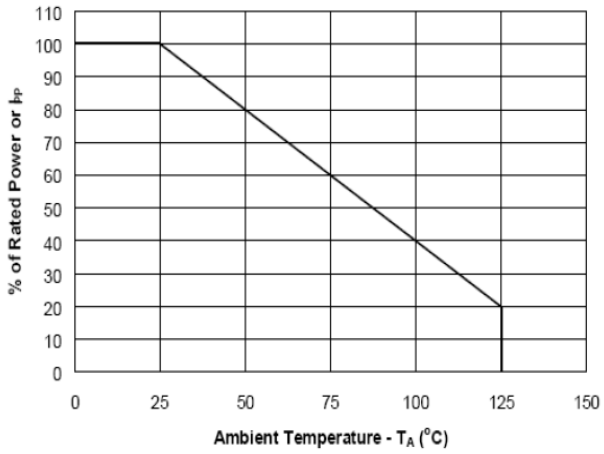
TYPICAL CHARACTERISTICS

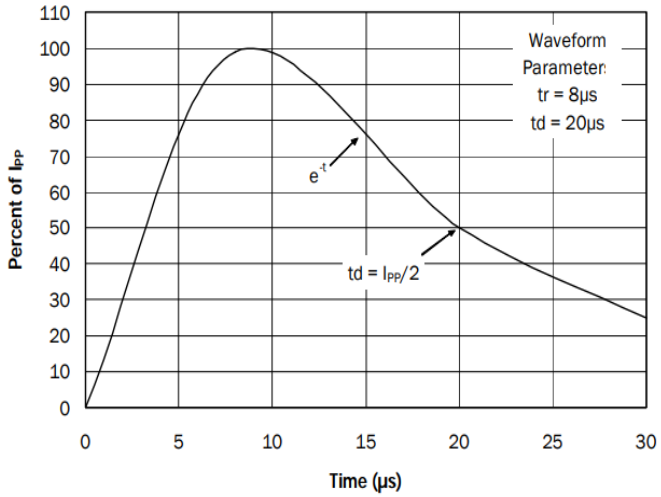
Non-Repetitive Peak Pulse Power vs. Pulse Time



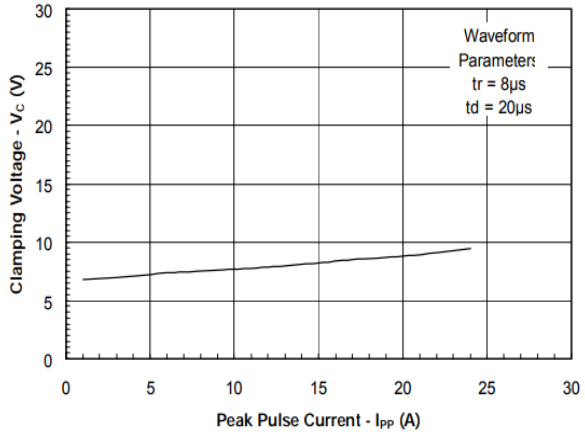
Power Derating Curve



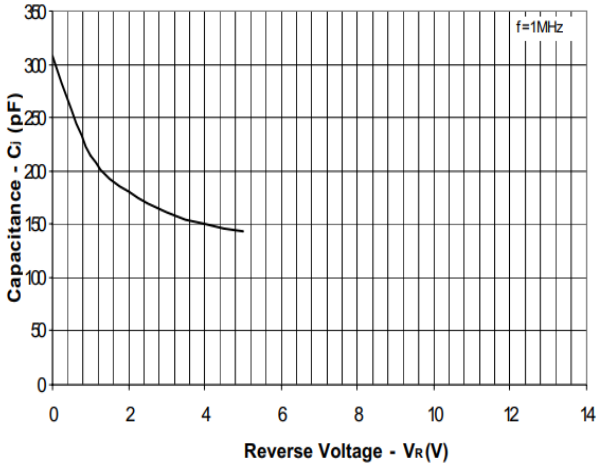
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current



Capacitance vs. Reverse Voltage



Forward Voltage vs. Forward Current