



SE05Q4UMD5

ESD PROTECTION DIODE

FEATURES

- 200W Peak Pulse Power per Line (tp=8/20μs)
- IEC61000-4-2(ESD) 15kV(air), 8kV(Contact)
- IEC61000-4-4(EFT) 40A(5/50ns)
- Protect One Power or I/O Port
- Low Clamping Voltage
- Low leakage current
- Uni-directional Configurations
- Suffix " H " indicated Halogen-free part, ex..SE05Q4UMD5H

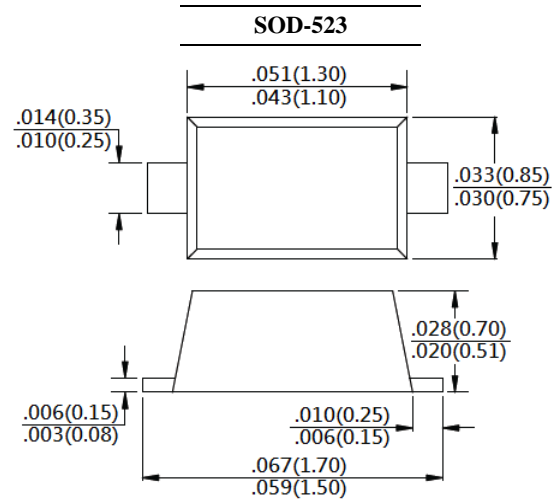
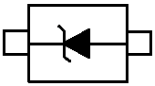
APPLICATIONS

- Cellular handsets and accessories
- Portable instrumentation
- Peripherals
- Serial and Parallel Ports
- Notebooks, Desktops, Servers

MECHANICAL DATA

Case : SOD-523

PIN CONFIGURATION



Dimensions in inches and (millimeters)

Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified)

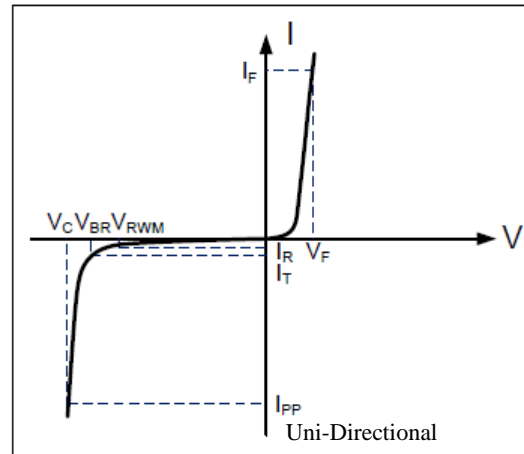
Parameter	Symbol	Value	Units
Peak Pulse Power (tp = 8/20μs)	P _{pp}	200	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	15	kV
ESD per IEC 61000-4-2 (Contact)		8	
Operating Junction Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C



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



Electrical Characteristics Per line @ 25°C Unless Otherwise Specified

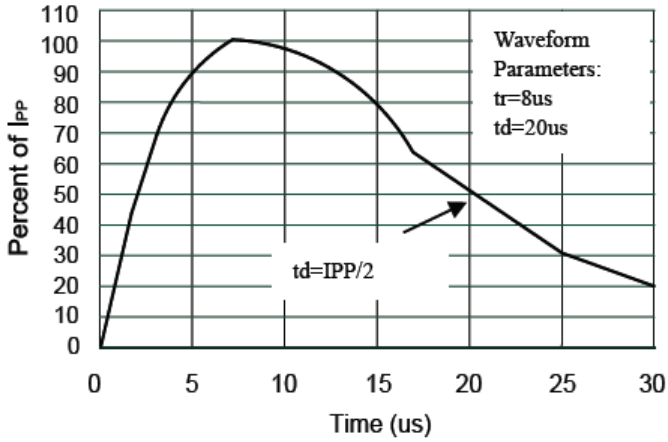
Part Numbers	V_{RWM}	I_R	V_{BR}	I_T	V_C @ $I_{PP}=1A$	C_j @ $V_R=0V, 1MHz$	
	(V)	(μA)	Min.(V)	(mA)	(V)	Typ.(pF)	Max.(pF)
SE05Q4UMD5	5.0	2.0	6.0	1.0	9.8	36.0	45.0



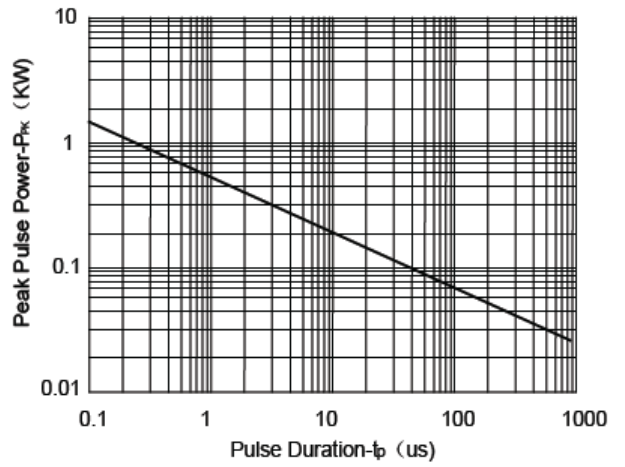
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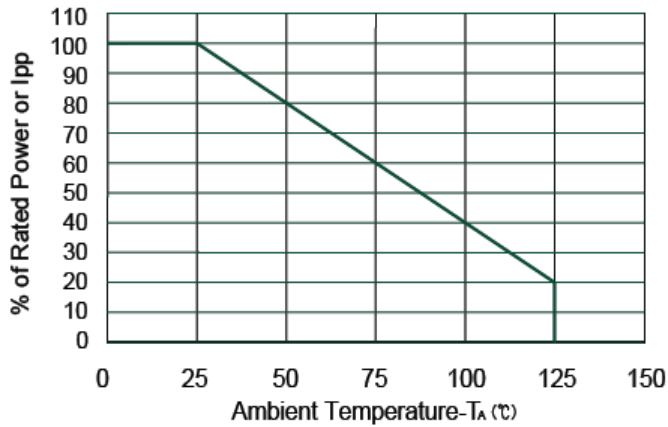
RATINGS AND CHARACTERISTIC CURVES



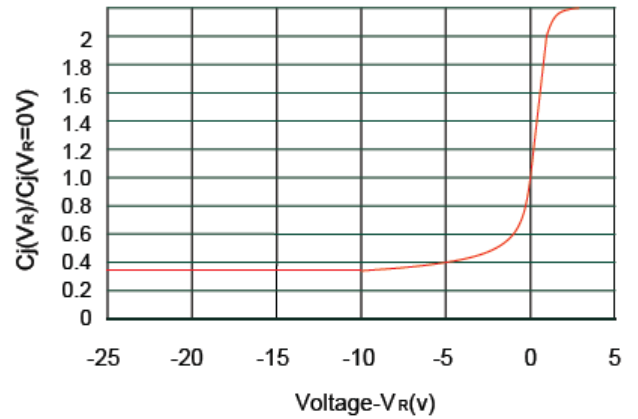
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



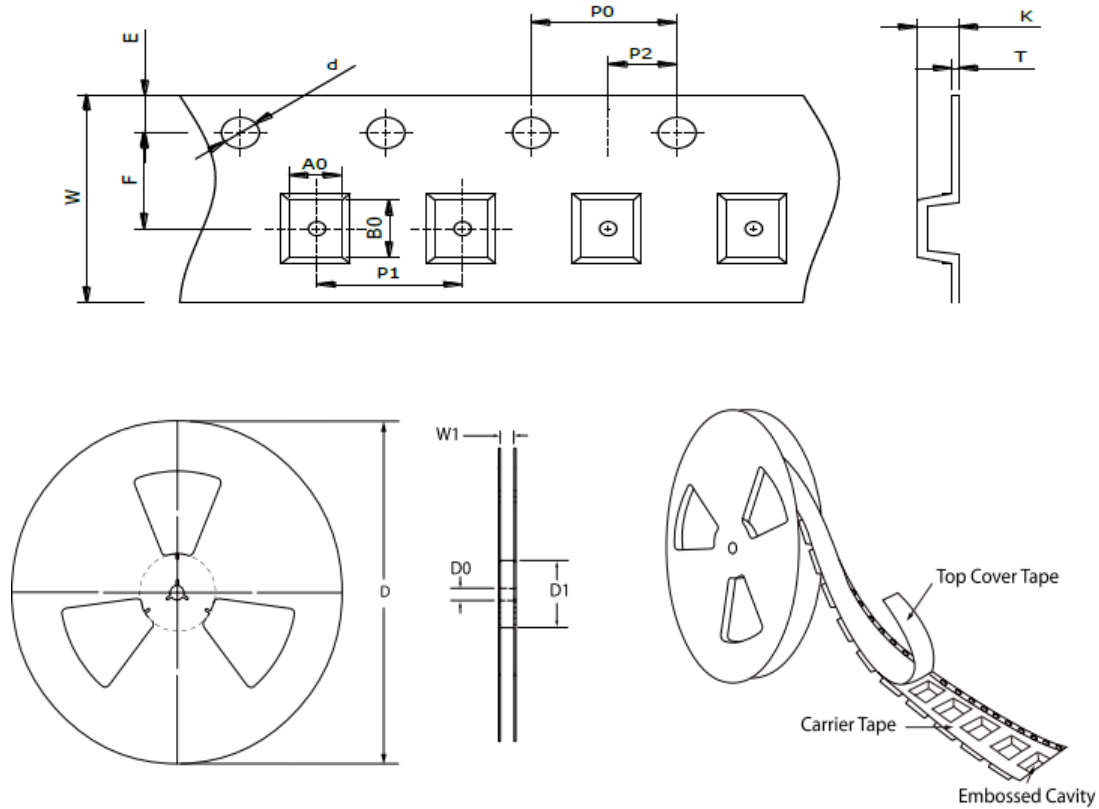
Junction Capacitance vs. Reverse Voltage



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TAPE & REEL SPECIFICATION



Item	Symbol	SOD-523
Carrier width	A ₀	0.80 ± 0.10
Carrier length	B ₀	1.95 ± 0.10
Carrier depth	K	0.50 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D ₀	13.00 ± 0.20
Reel inner diameter	D ₁	MIN. 54.00
Sprocke hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocke hole pitch	P ₀	4.00 ± 0.10
Punch hole pitch	P ₁	4.00 ± 0.10
Embossment center	P ₂	2.00 ± 0.10
Overall tape thickness	T	0.25 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W1	MAX. 13.50

ORDER INFORMATION

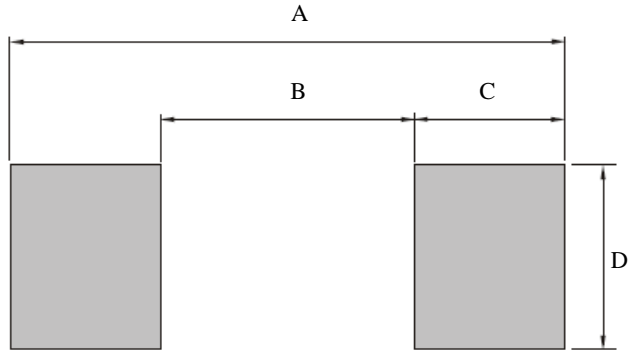
Package	Marking Code	Reel Size	Quantity
SOD-523	ZF	7"	3,000



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SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D
SOD-523	2.02	0.82	0.60	0.70