



SE05Q8UDD5H

ESD PROTECTION DIODE

FEATURES

- 181W Peak Pulse Power per Line ($t_p=8/20\mu s$)
- IEC61000-4-2(ESD) 30kV(air), 30kV(Contact)
- Protect One Power or I/O Port
- Low Clamping Voltage
- Low Leakage current
- Uni-directional Configurations
- Suffix " H " indicated Halogen-free part, ex.SE05Q8UDD5H

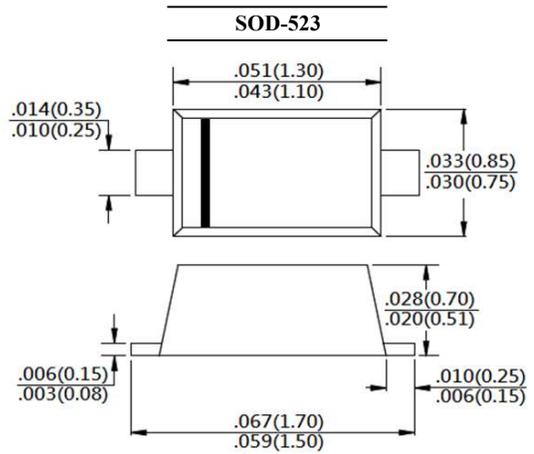
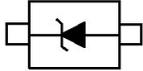
APPLICATIONS

- Cellular phones
- Portable devices
- Digital cameras

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
Total Power Dissipation on FR-4 Board ⁽¹⁾ at $T_A = 25^\circ C$	P_{tot}	200	mW
ESD per IEC 61000-4-2 (Air)	V_{ESD}	30	kV
ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30	kV
ESD Voltage	Per Human Body Model	16	kV
	Per Machine Model	400	V
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Note :

1. FR-4 printed circuit board, single-sided copper, mounting pad 1 cm².



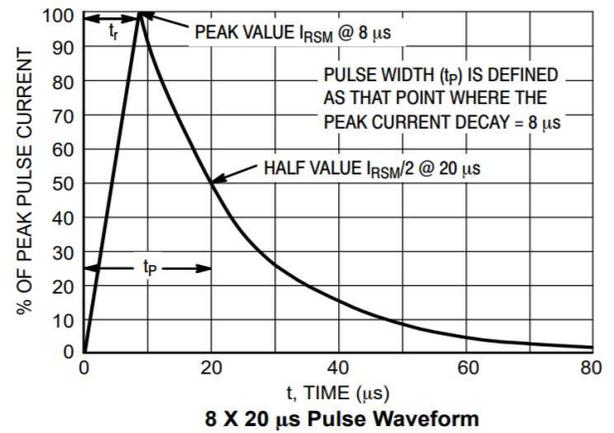
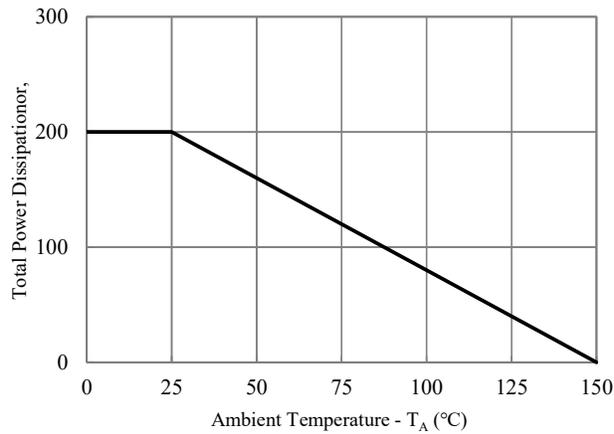
SE05Q8UDD5H

ESD PROTECTION DIODE

Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified)

Parameter	Test Condition	Symbol	Min	Typ	Max	Units
Peak Power Dissipation	$t_p=8/20\mu s$	P_{PK}	-	-	174	W
Reverse Stand-Off Voltage	-	V_{RWM}	-	-	5	V
Reverse Current	$V_{RWM}=6V$	I_R	0.05	-	-	V
Breakdown Voltage	$I_T=1mA$	V_{BR}	6.2	-	-	V
Forward Voltage	$I_F=10mA$	V_F	-	-	1.1	V
Clamping Voltage	$I_{PP}=5.0A, t_p=8/20\mu s$	V_C	-	11.6	-	V
	$I_{PP}=9.4A, t_p=8/20\mu s$		-	-	18.6	
Junction Capacitance	$V_R=0V, f=1MHz$	C_J	-	80	-	pF

RATINGS AND CHARACTERISTIC CURVES

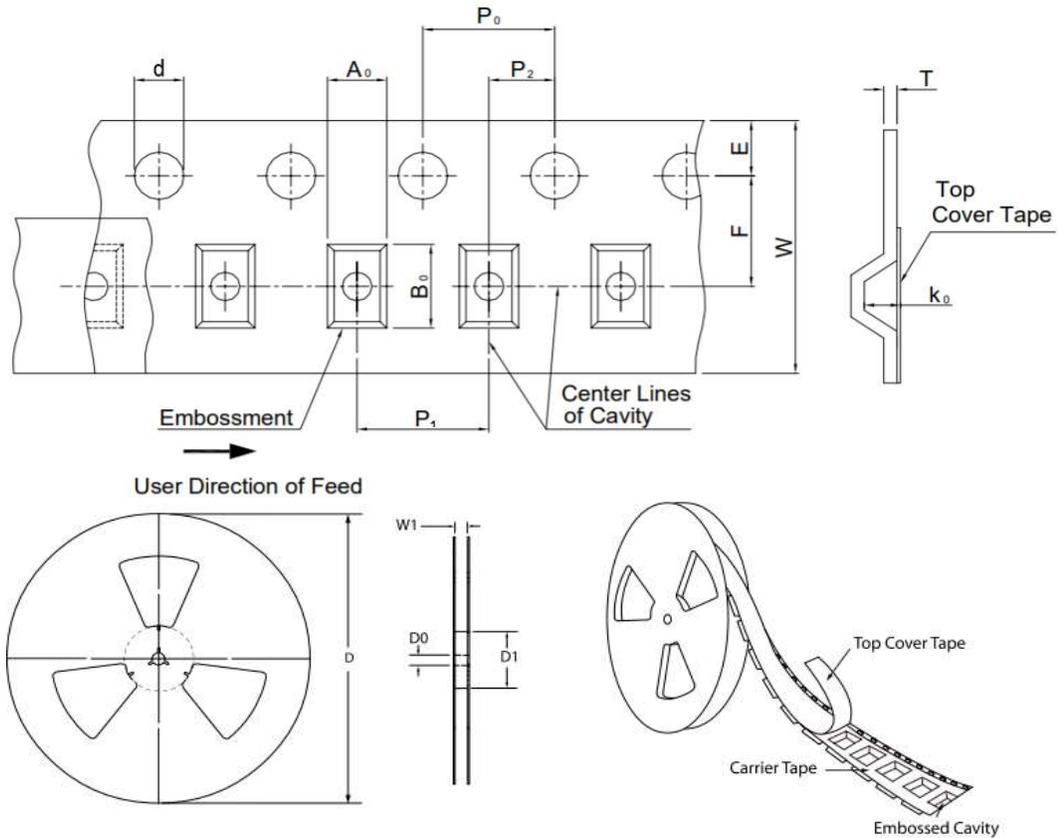




SE05Q8UDD5H

ESD PROTECTION DIODE

TAPE & REEL SPECIFICATION



Item	Symbol	SOD-523
Carrier width	A ₀	1.00 ± 0.10
Carrier length	B ₀	1.85 ± 0.10
Carrier depth	K ₀	0.85 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D ₀	13.00 ± 0.50
Reel inner diameter	D ₁	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket 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	MAX. 0.60
Tape width	W	8.00 ± 0.30
Reel width	W ₁	MAX. 10.00

ORDER INFORMATION

Package	Reel Size	Quantity
SOD-523	7"	4,000

MARKING CODE

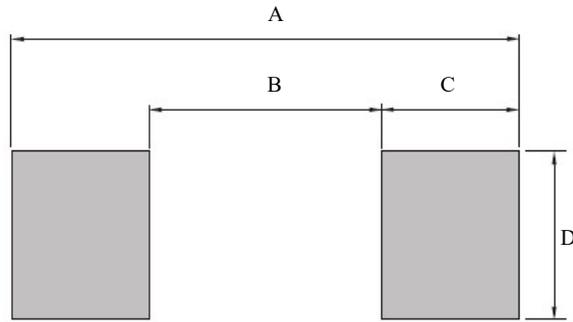
Part Number	Marking Code
SE05Q8UDD5H	05



SE05Q8UDD5H

ESD PROTECTION DIODE

SUGGESTED SOLDER PAD LAYOUT



Unit : mm

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