



# SE15Q2BMI

## ESD PROTECTION DIODE

### FEATURES

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- Low Clamping Voltage
- Low leakage current
- Working Voltage 15V
- Suffix " H " indicated Halogen-free part, ex.SE15Q2BMIH

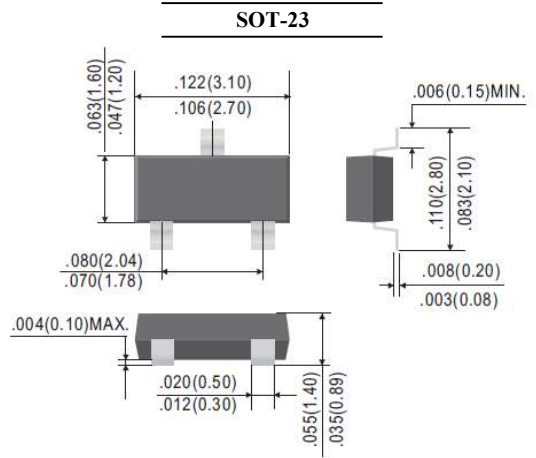
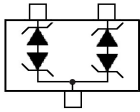
### APPLICATIONS

- Data lines
- Industrial Controls
- Computers and peripherals
- Portable instrumentation
- Notebook Computers
- Set-Top Box

### MECHANICAL DATA

Case : SOT-23

### PIN CONFIGURATION



**Dimensions in inches and (millimeters)**

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

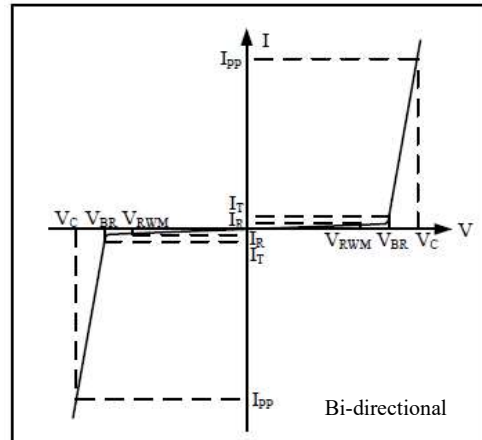
Parameter	Symbol	Value	Units
Peak Pulse Power (tp = 8/20μs)	P <sub>PP</sub>	350	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	15	kV
ESD per IEC 61000-4-2 (Contact)		8	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C



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Symbol	Parameter
$V_{RWM}$	Nominal Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Reverse Breakdown Voltage @ $I_T$
$I_T$	Test Current for Reverse Breakdown
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Maximum Peak Pulse Current
$V_R$	Reverse Voltage
$C_j$	Capacitance



### Electrical Characteristics ( $T_{amb}=25^{\circ}C$ Unless Otherwise Specified)

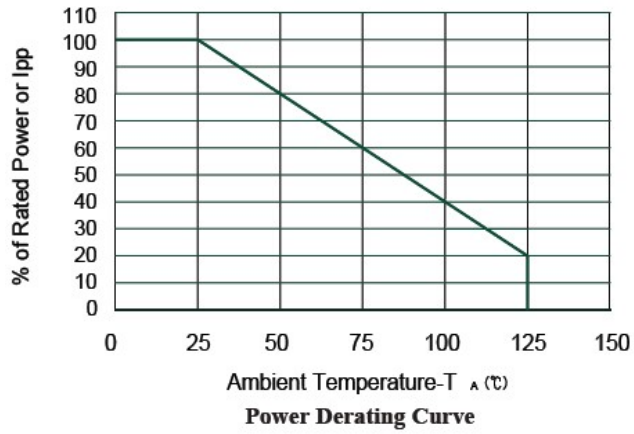
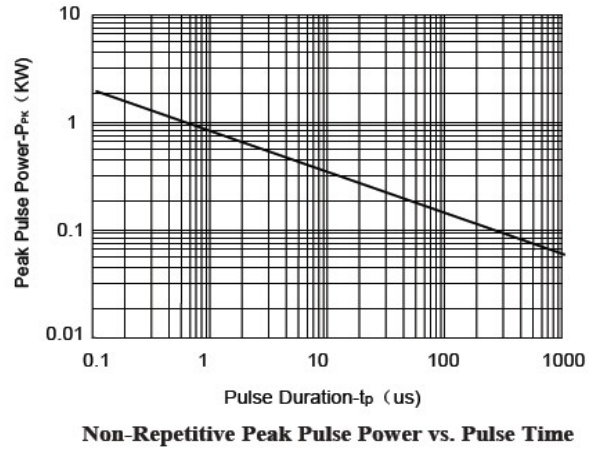
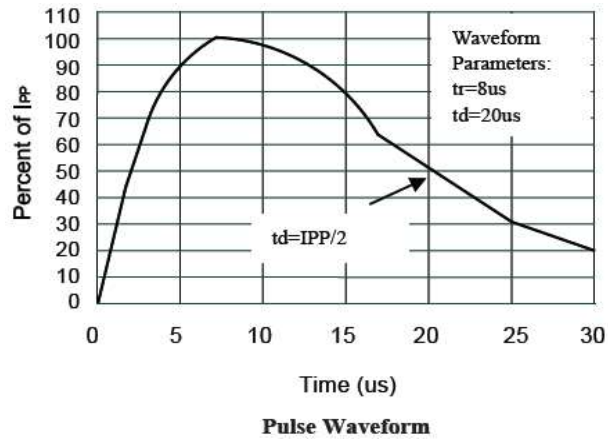
Parameter	Conditions	Symbol	Min.	Typ.	Max.	Units
Reverse Working Voltage	-	$V_{RWM}$	-	-	15.0	V
Reverse Breakdown Voltage	$I_T = 1mA$	$V_{BR}$	16.7	-	-	V
Reverse Leakage Current	$V_{RWM} = 15V$	$I_R$	-	-	1	$\mu A$
Clamping Voltage	$I_{PP} = 1A, t_p = 8/20\mu s,$	$V_C$	-	-	24	V
Junction Capacitance	$V_R = 0V, f = 1MHz,$	$C_j$	-	15	23	pF



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### RATINGS AND CHARACTERISTIC CURVES



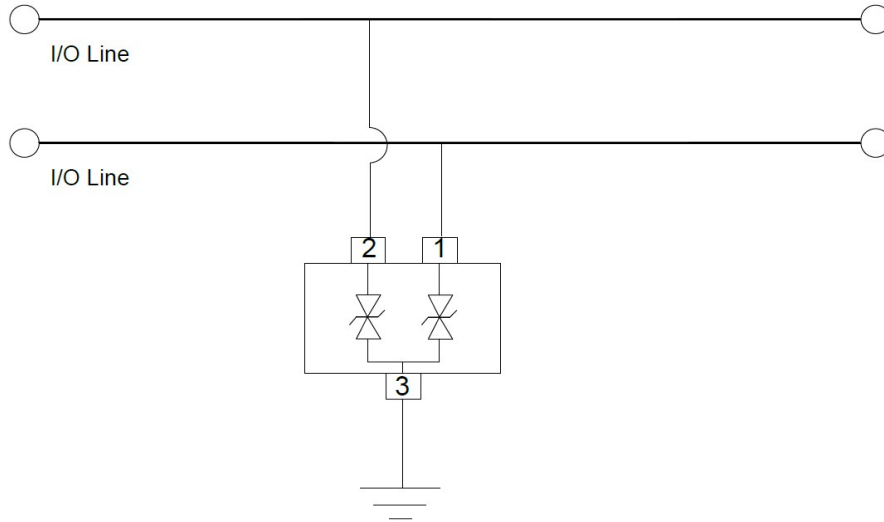


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## ESD PROTECTION DIODE

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### TYPICAL APPLICATIONS



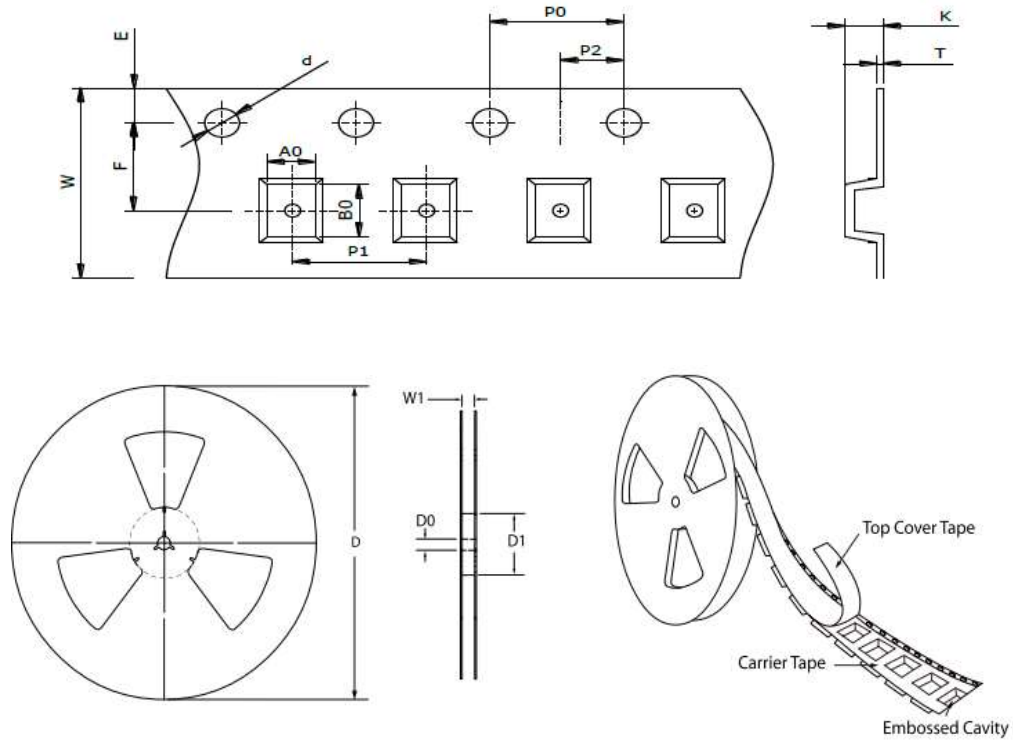
Two I/O Lines Bi-direction Protection



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### TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A <sub>0</sub>	3.10 ± 0.10
Carrier length	B <sub>0</sub>	2.70 ± 0.10
Carrier depth	K	1.15 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D <sub>0</sub>	13.00 ± 0.20
Reel inner diameter	D <sub>1</sub>	MIN. 54.00
Sprocke hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocke hole pitch	P <sub>0</sub>	4.00 ± 0.10
Punch hole pitch	P <sub>1</sub>	4.00 ± 0.10
Embossment center	P <sub>2</sub>	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W1	MAX. 13.50

### ORDER INFORMATION

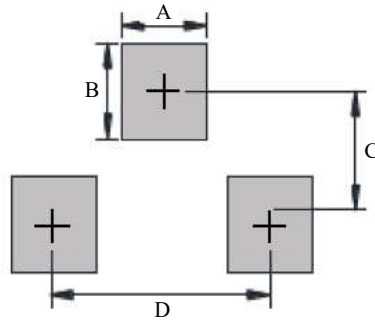
Package	Reel Size	Quantity
SOT-23	7"	3,000



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### SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D
SOT-23	0.80	0.80	2.02	1.90