



SE24Q4BMI

ESD PROTECTION DIODE

FEATURES

- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC61000-4-5 (surge) I_{pp}=5A at t_p=8/20μs
- Low Clamping Voltage
- Low leakage current
- Working Voltage 24V
- Suffix " H " indicated Halogen-free part, ex.SE24Q4BMIH

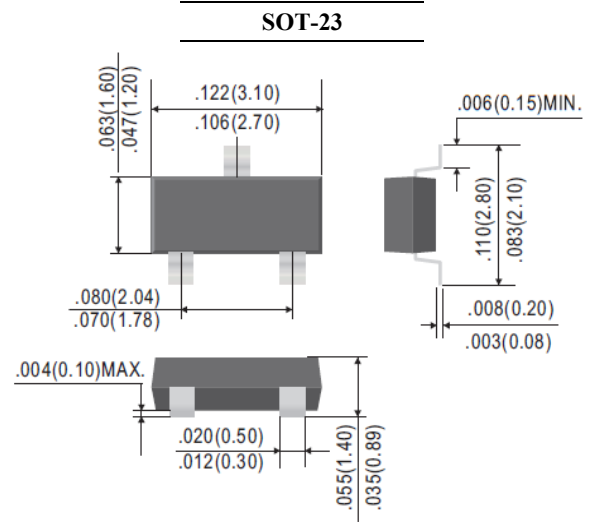
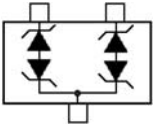
APPLICATIONS

- CAN bus protection
- Automotive applications

MECHANICAL DATA

Case : SOT-23

PIN CONFIGURATION



Dimensions in inches and (millimeters)

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

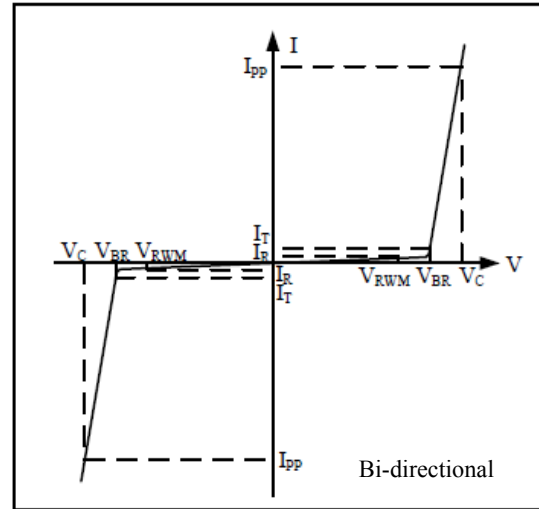
Parameter	Symbol	Value	Units
Peak Pulse Power (t _p = 8/20μs)	P _{pp}	350	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	30	kV
ESD per IEC 61000-4-2 (Contact)		30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C



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Symbol	Parameter
V_{RWM}	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)

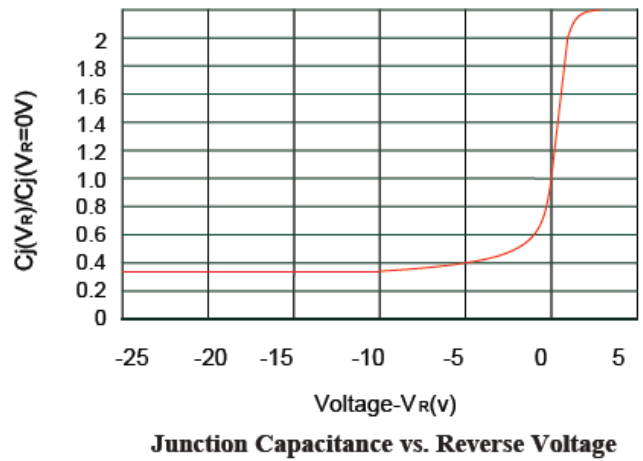
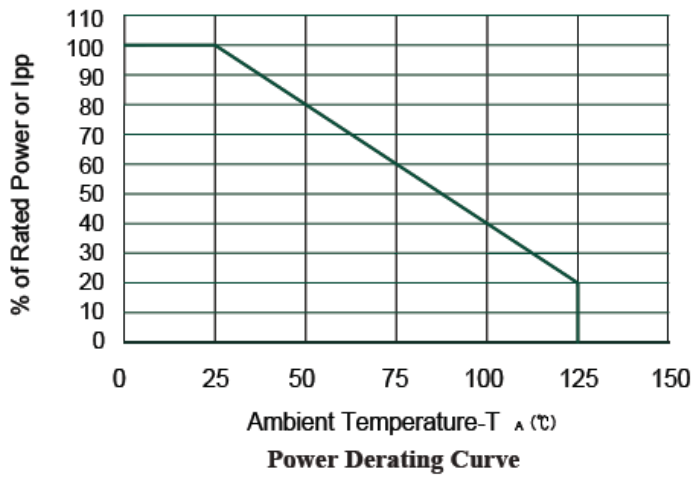
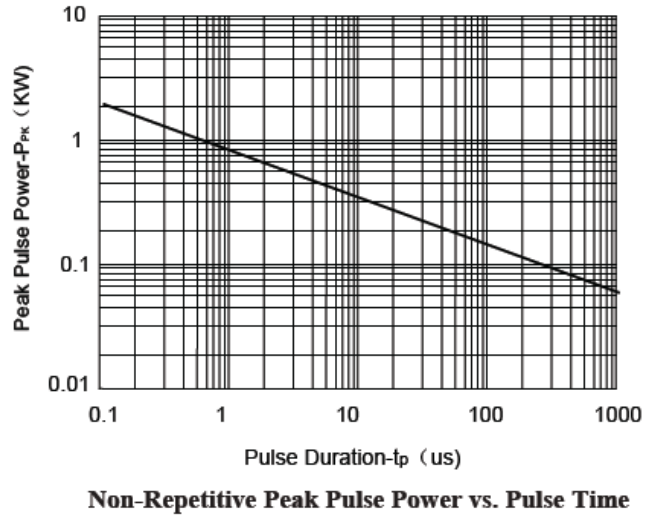
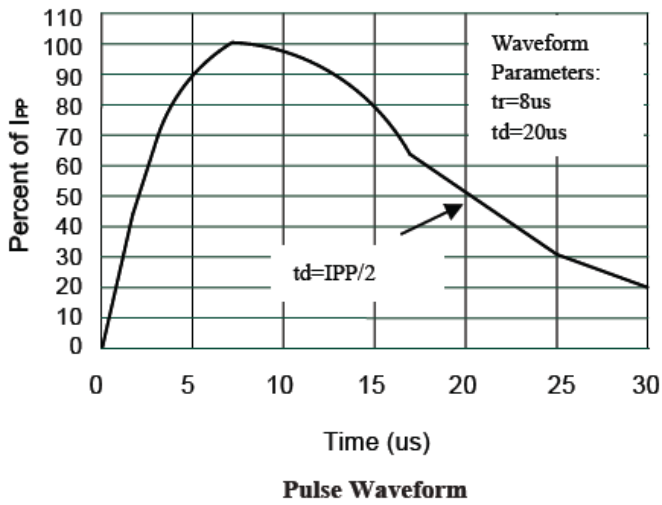
Parameter	Conditions	Symbol	Min.	Typ.	Max.	Units
Reverse Working Voltage	-	V_{RWM}	-	-	24.0	V
Reverse Breakdown Voltage	$I_T = 1mA$	V_{BR}	26.2	-	-	V
Reverse Leakage Current	$V_{RWM} = 24V$	I_R	-	1	10	nA
Clamping Voltage	$I_{PP} = 1A, t_p = 8/20\mu s,$	V_C	-	-	34	V
	$I_{PP} = 7A, t_p = 8/20\mu s,$		-	50	60	
Junction Capacitance	$V_R = 0V, f = 1MHz,$	C_j	-	28	40	pF



SE24Q4BMI

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RATINGS AND CHARACTERISTIC CURVES

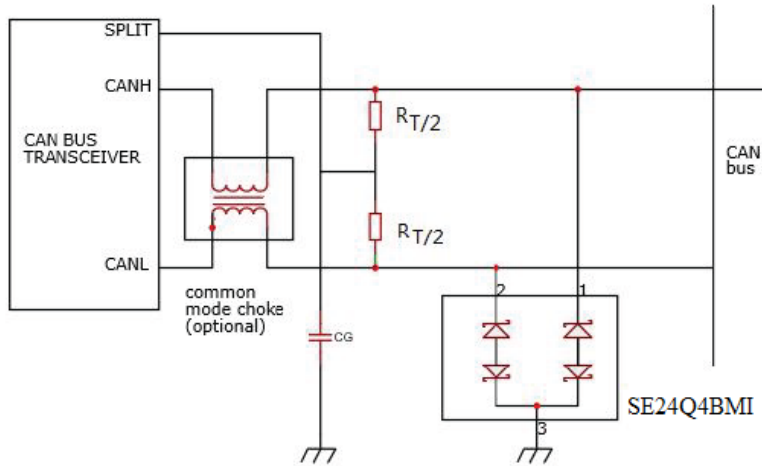




SE24Q4BMI

ESD PROTECTION DIODE

The SE24Q4BMI is designed for the protection of two automotive CAN bus lines from the damage caused by ESD and surge pulses. The SE24Q4BMI can be used for both, high-speed CAN bus and fault-tolerant CAN bus protection. The SE24Q4BMI provides a surge capability of up to 350W per line for an 8/20 μ s waveform



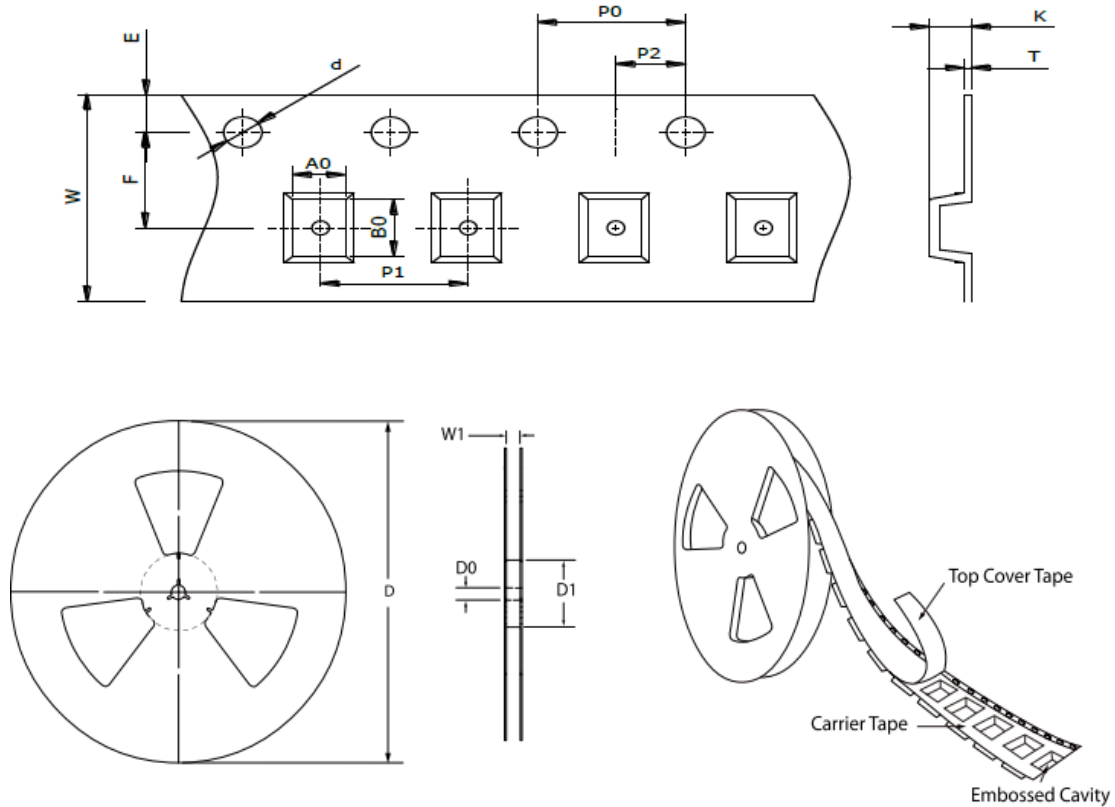
Typical application: ESD protection of two automotive CAN bus lines



SE24Q4BMI

ESD PROTECTION DIODE

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A ₀	3.10 ± 0.10
Carrier length	B ₀	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 ₀	13.00 ± 0.20
Reel inner diameter	D ₁	MIN. 54.00
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	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W ₁	MAX. 13.50

ORDER INFORMATION

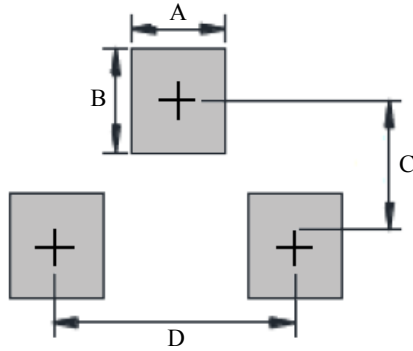
Package	Reel Size	Quantity
SOT-23	7"	3,000



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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