# imall

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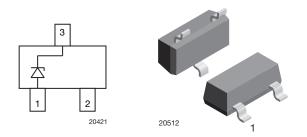


## Contact us

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### Single-Line ESD Protection in SOT-23



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#### MARKING (example only)



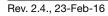
YYY = type code (see table below) XX = date code

#### FEATURES

- Single-line ESD-protection device
- ESD-protection acc. IEC 61000-4-2 ± 30 kV contact discharge ± 30 kV air discharge
- ESD capability according to AEC-Q101: human body model: class H3B: > 8 kV
- Space saving SOT-23 package
- e3 Sn
- AEC-Q101 qualified available
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

ORDERIN	ORDERING INFORMATION									
	ENVIRONMENTAL AND QUALITY CODE PACKAGING CODE									
PART NUMBER (EXAMPLE)	AEC-Q101		COMPLIANT + D (Pb)-FREE		3K PER 7" REEL (8 mm TAPE),	10K PER 13" REEL (8 mm TAPE),	ORDERING CODE (EXAMPLE)			
()	QUALIFIED	QUALIFIED STANDARD GREEN PLATED 15K/BOX = MOQ		15K/BOX = MOQ	10K/BOX = MOQ					
GSOT05-		E		3	-08		GSOT05-E3-08			
GSOT05-			G	3	-08		GSOT05-G3-08			
GSOT05-	Н	E		3	-08		GSOT05-HE3-08			
GSOT05-	Н		G	3	-08		GSOT05-HG3-08			
GSOT05-		E		3		-18	GSOT05-E3-18			
GSOT05-			G	3		-18	GSOT05-G3-18			
GSOT05-	Н	E		3		-18	GSOT05-HE3-18			
GSOT05-	Н		G	3		-18	GSOT05-HG3-18			

PACKA		L					
DEVICE NAME	PACKAGE NAME	TYPE CODE	ENVIRONMENTAL STATUS	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
GSOT03	SOT-23	03	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
000100	001 20	03G	Green	8.1 mg	02 34 0 0	(according J-STD-020)	200 0/103 at terminais
GSOT04	SOT-23	04	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
000104	001 20	04G	Green	8.1 mg	02 34 9 0	(according J-STD-020)	
GSOT05	SOT-23	05	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
000100	001 20	05G	Green	8.1 mg		(according J-STD-020)	
GSOT08	SOT-23	08	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
030100	301-23	08G	Green	8.1 mg	02 94 0-0	(according J-STD-020)	
GSOT12	SOT-23	12	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
030112	301-23	12G	Green	8.1 mg	UL 94 V-0	(according J-STD-020)	200 0/10 S at terminals
GSOT15	SOT-23	15	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
000113	301-23	15G	Green	8.1 mg	02 94 0-0	(according J-STD-020)	
GSOT24	SOT-23	24	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
030124	301-23	24G	Green	8.1 mg	UL 94 V-0	(according J-STD-020)	200 0/10 S at terminals
GSOT36	SOT-23	36	Standard	8.8 mg	UL 94 V-0	MSL level 1	260 °C/10 s at terminals
G30130	301-23	36G	Green	8.1 mg	0L 94 V-0	(according J-STD-020)	



1 For technical questions, contact: <u>ESDprotection@vishay.com</u> Document Number: 85807





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ABSOLUTE MAXIMUM RATINGS GSOT03							
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT			
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, $t_p = 8/20 \ \mu s$ ; single shot	I <sub>PPM</sub>	30	А			
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, $t_p = 8/20 \ \mu s$ ; single shot	P <sub>PP</sub>	369	W			
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	V	± 30	kV			
	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV			
Operating temperature	Junction temperature	TJ	-40 to +125	°C			
Storage temperature		T <sub>STG</sub>	-55 to +150	°C			

ABSOLUTE MAXIMUM RATINGS GSOT04							
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT			
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	I <sub>PPM</sub>	30	А			
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	P <sub>PP</sub>	429	W			
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	M	± 30	kV			
	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV			
Operating temperature	Junction temperature	TJ	-40 to +125	°C			
Storage temperature		T <sub>STG</sub>	-55 to +150	°C			

ABSOLUTE MAXIMUM RATINGS GSOT05							
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT			
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	I <sub>PPM</sub>	30	А			
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	P <sub>PP</sub>	480	W			
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses		± 30	kV			
	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV			
Operating temperature	Junction temperature	TJ	-40 to +125	°C			
Storage temperature		T <sub>STG</sub>	-55 to +150	°C			

ABSOLUTE MAXIMUM RATINGS GSOT08						
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT		
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	I <sub>PPM</sub>	18	А		
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	P <sub>PP</sub>	345	W		
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	M	± 30	kV		
	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV		
Operating temperature	Junction temperature	TJ	-40 to +125	°C		
Storage temperature		T <sub>STG</sub>	-55 to +150	°C		

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ABSOLUTE MAXIMUM RATINGS GSOT12							
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT			
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	I <sub>PPM</sub>	12	А			
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, $t_p = 8/20 \ \mu s$ ; single shot	P <sub>PP</sub>	312	W			
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	M	± 30	kV			
	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV			
Operating temperature	Junction temperature	TJ	-40 to +125	°C			
Storage temperature		T <sub>STG</sub>	-55 to +150	°C			

ABSOLUTE MAXIMUM RATINGS GSOT15							
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT			
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	I <sub>PPM</sub>	8	A			
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	P <sub>PP</sub>	230	W			
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	V	± 30	kV			
	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV			
Operating temperature	Junction temperature	TJ	-40 to +125	°C			
Storage temperature		T <sub>STG</sub>	-55 to +150	°C			

ABSOLUTE MAXIMUM RATINGS GSOT24							
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT			
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	I <sub>PPM</sub>	5	А			
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	P <sub>PP</sub>	235	W			
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	\/	± 30	kV			
	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV			
Operating temperature	Junction temperature	TJ	-40 to +125	°C			
Storage temperature		T <sub>STG</sub>	-55 to +150	°C			

ABSOLUTE MAXIMUM RATINGS GSOT36						
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT		
Peak pulse current	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	I <sub>PPM</sub>	3.5	А		
Peak pulse power	Pin 3 to 1 acc. IEC 61000-4-5, t <sub>p</sub> = 8/20 μs; single shot	P <sub>PP</sub>	248	W		
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	N/	± 30	kV		
ESD initiality	Air discharge acc. IEC 61000-4-2; 10 pulses	V <sub>ESD</sub>	± 30	kV		
Operating temperature	Junction temperature	TJ	-40 to +125	°C		
Storage temperature		T <sub>STG</sub>	-55 to +150	°C		





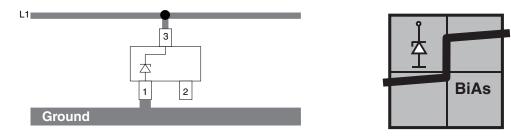
#### BIAs-MODE (1-line Bidirectional Asymmetrical protection mode)

With the GSOTxx one signal- or data-lines (L1) can be protected against voltage transients. With pin 1 connected to ground and pin 3 connected to a signal- or data-line which has to be protected. As long as the voltage level on the data- or signal-line is between 0 V (ground level) and the specified maximum reverse working voltage ( $V_{RWM}$ ) the protection diode between pin 1 and pin 3 offers a high isolation to the ground line. The protection device behaves like an open switch.

As soon as any positive transient voltage signal exceeds the breakdown voltage level of the protection diode, the diode becomes conductive and shorts the transient current to ground. Now the protection device behaves like a closed switch. The clamping voltage ( $V_C$ ) is defined by the breakdown voltage ( $V_{BR}$ ) level plus the voltage drop at the series impedance (resistance and inductance) of the protection diode.

Any negative transient signal will be clamped accordingly. The negative transient current is flowing in the forward direction through the protection diode. The low forward voltage (V<sub>F</sub>) clamps the negative transient close to the ground level.

Due to the different clamping levels in forward and reverse direction the GSOTxx clamping behavior is Bidirectional and Asymmetrical (BiAs).



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<b>ELECTRICAL CHARACTERISTICS GSOT03</b> ( $T_{amb} = 25$ °C unless otherwise specified) between pin 3 and pin 1								
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT		
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines		
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	3.3	V		
Reverse voltage	at I <sub>R</sub> = 100 μA	V <sub>R</sub>	3.3	-	-	V		
Reverse current	at V <sub>R</sub> = 3.3 V	I <sub>R</sub>	-	-	100	μA		
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	4	4.6	5.5	V		
Deverse elemping veltage	at I <sub>PP</sub> = 1 A	V	-	5.7	7.5	V		
Reverse clamping voltage	at $I_{PP} = I_{PPM} = 30 \text{ A}$	V <sub>C</sub>	-	10	12.3	V		
	at I <sub>PP</sub> = 1 A	M	-	1	1.2	V		
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 30 A	V <sub>F</sub>	-	4.5	-	V		
<b>2</b> II	at $V_R = 0$ V; f = 1 MHz	0	-	420	600	pF		
Capacitance	at V <sub>R</sub> = 1.6 V; f = 1 MHz	C <sub>D</sub>	-	260	-	pF		

<b>ELECTRICAL CHARACTERISTICS GSOT04</b> ( $T_{amb} = 25$ °C unless otherwise specified) between pin 3 and pin 1							
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines	
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	4	V	
Reverse voltage	at I <sub>R</sub> = 20 μΑ	V <sub>R</sub>	4	-	-	V	
Reverse current	at V <sub>R</sub> = 4 V	I <sub>R</sub>	-	-	20	μA	
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	5	6.1	7	V	

GSOT03 to GSOT36



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<b>ELECTRICAL CHARAC</b> between pin 3 and pin 1	<b>TERISTICS GSOT04</b> (T <sub>amb</sub> = 25 °	°C unless ot	herwise s	pecified)		
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse clamping voltage	at I <sub>PP</sub> = 1 A	V	-	7.5	9	V
	at I <sub>PP</sub> = I <sub>PPM</sub> = 30 A	V <sub>C</sub>	-	11.2	14.3	V
	at I <sub>PP</sub> = 1 A	V	-	1	1.2	V
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 30 A	V <sub>F</sub>	-	4.5	-	V
Ormanitanaa	at V <sub>R</sub> = 0 V; f = 1 MHz	0	-	310	450	pF
Capacitance	at V <sub>R</sub> = 2 V; f = 1 MHz	- C <sub>D</sub>	-	200	-	pF

ELECTRICAL CHARACTERISTICS GSOT05 (T <sub>amb</sub> = 25 °C unless otherwise specifi	ed)
between pin 3 and pin 1	

PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	5	V
Reverse voltage	at I <sub>R</sub> = 10 μA	V <sub>R</sub>	5	-	-	V
Reverse current	at $V_{R} = 5 V$	I <sub>R</sub>	-	-	10	μA
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	6	6.8	8	V
	at I <sub>PP</sub> = 1 A	N	-	7	8.7	V
Reverse clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 30 A	V <sub>C</sub>	-	12	16	V
Forward elemping voltage	at I <sub>PP</sub> = 1 A	V	-	1	1.2	V
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 30 A	V <sub>F</sub>	-	4.5	-	V
0	at $V_R = 0 V$ ; f = 1 MHz	_	-	260	350	pF
Capacitance	at V <sub>R</sub> = 2.5 V; f = 1 MHz	C <sub>D</sub>	-	150	-	pF

### **ELECTRICAL CHARACTERISTICS GSOT08** (T<sub>amb</sub> = 25 °C unless otherwise specified) between pin 3 and pin 1

between pin 3 and pin 1						
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	8	V
Reverse voltage	at I <sub>R</sub> = 5 μA	V <sub>R</sub>	8	-	-	V
Reverse current	at V <sub>R</sub> = 8 V	I <sub>R</sub>	-	-	5	μA
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	9	10	11	V
	at I <sub>PP</sub> = 1 A	M	-	10.7	13	V
Reverse clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 18 A	V <sub>C</sub>	-	15.2	19.2	V
Forward clamping voltage	at I <sub>PP</sub> = 1 A	N	-	1	1.2	V
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 18 A	V <sub>F</sub>	-	3	-	V
Canacitanaa	at $V_R = 0 V$ ; f = 1 MHz		-	160	250	pF
Capacitance	at $V_R = 4 V$ ; f = 1 MHz	C <sub>D</sub>	-	80	-	pF

GSOT03 to GSOT36



### Vishay Semiconductors

<b>ELECTRICAL CHARACTERISTICS GSOT12</b> ( $T_{amb} = 25$ °C unless otherwise specified) between pin 3 and pin 1							
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines	
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	12	V	
Reverse voltage	at I <sub>R</sub> = 1 μA	V <sub>R</sub>	12	-	-	V	
Reverse current	at V <sub>R</sub> = 12 V	I <sub>R</sub>	-	-	1	μA	
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	13.5	15	16.5	V	
	at I <sub>PP</sub> = 1 A		-	15.4	18.7	V	
Reverse clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 12 A	V <sub>C</sub>	-	21.2	26	V	
Famula lana in a calka as	at I <sub>PP</sub> = 1 A	– V <sub>F</sub>	-	1	1.2	V	
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 12 A		-	2.2	-	V	
Orașeitarea	at $V_R = 0 V$ ; f = 1 MHz	0	-	115	150	pF	
Capacitance	at V <sub>R</sub> = 6 V; f = 1 MHz	C <sub>D</sub>	-	50	-	pF	

<b>ELECTRICAL CHARAC</b> between pin 3 and pin 1	TERISTICS GSOT15 (T <sub>amb</sub> = 25 °C	C unless ot	herwise s	pecified)		
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	15	V
Reverse voltage	at I <sub>R</sub> = 1 μA	V <sub>R</sub>	15	-	-	V
Reverse current	at V <sub>R</sub> = 15 V	I <sub>R</sub>	-	-	1	μA
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	16.5	18	20	V
Povoroo olomping voltago	at I <sub>PP</sub> = 1 A	M	-	19.4	23.5	V
Reverse clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 8 A	V <sub>C</sub>	-	24.8	28.8	V
Forward alamping voltage	at I <sub>PP</sub> = 1 A	V	-	1	1.2	V
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 8 A	V <sub>F</sub>	-	1.8	-	V
Canacitanaa	at $V_R = 0 V$ ; f = 1 MHz		-	90	120	pF
Capacitance	at V <sub>R</sub> = 7.5 V; f = 1 MHz	C <sub>D</sub>	-	35	-	pF

<b>ELECTRICAL CHARACTERISTICS GSOT24</b> ( $T_{amb}$ = 25 °C unless otherwise specified) between pin 3 and pin 1							
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines	
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	24	V	
Reverse voltage	at I <sub>R</sub> = 1 μA	V <sub>R</sub>	24	-	-	V	
Reverse current	at V <sub>R</sub> = 24 V	I <sub>R</sub>	-	-	1	μA	
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	27	30	33	V	
	at I <sub>PP</sub> = 1 A	.,	-	34	41	V	
Reverse clamping voltage	at $I_{PP} = I_{PPM} = 5 A$	V <sub>C</sub>	-	41	47	V	
	at I <sub>PP</sub> = 1 A	V <sub>F</sub>	-	1	1.2	V	
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 5 A		-	1.4	-	V	
Oranaitanaa	at $V_R = 0$ V; f = 1 MHz	0	-	65	80	pF	
Capacitance	at V <sub>R</sub> = 12 V; f = 1 MHz	CD	-	20	-	pF	

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between pin 3 and pin 1							
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Protection paths	Number of lines which can be protected	N <sub>channel</sub>	-	-	1	lines	
Reverse stand-off voltage	Max. reverse working voltage	V <sub>RWM</sub>	-	-	36	V	
Reverse voltage	at I <sub>R</sub> = 1 μA	V <sub>R</sub>	36	-	-	V	
Reverse current	at V <sub>R</sub> = 36 V	I <sub>R</sub>	-	-	1	μA	
Reverse breakdown voltage	at I <sub>R</sub> = 1 mA	V <sub>BR</sub>	39	43	47	V	
Deverse elemening voltage	at I <sub>PP</sub> = 1 A	V	-	49	60	V	
Reverse clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 3.5 A	V <sub>C</sub>	-	59	71	V	
Forward alamping valtage	at I <sub>PP</sub> = 1 A	N	-	1	1.2	V	
Forward clamping voltage	at I <sub>PP</sub> = I <sub>PPM</sub> = 3.5 A	V <sub>F</sub>	-	1.3	-	V	
Canacitanaa	at $V_R = 0$ V; f = 1 MHz	0	-	52	65	pF	
Capacitance	at V <sub>R</sub> = 18 V; f = 1 MHz	C <sub>D</sub>	-	12	-	pF	

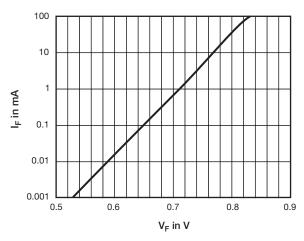


Fig. 1 - Typical Forward Current I<sub>F</sub> vs. Forward Voltage V<sub>F</sub>

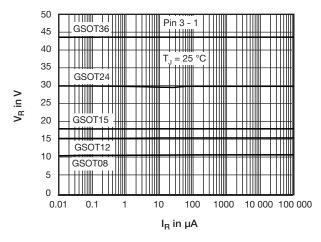


Fig. 2 - Typical Reverse Voltage  $V_{\text{R}}$  vs. Reverse Current  $I_{\text{R}}$ 

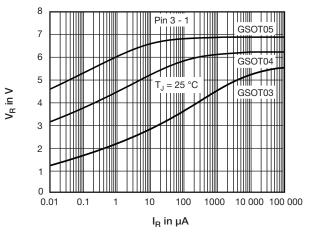
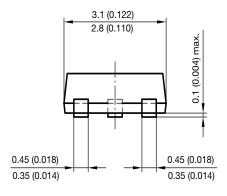


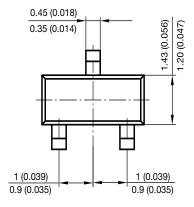
Fig. 3 - Typical Reverse Voltage  $V_R$  vs. Reverse Current  $I_R$ 

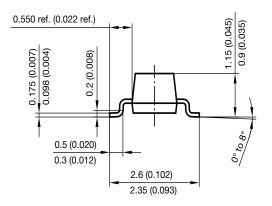
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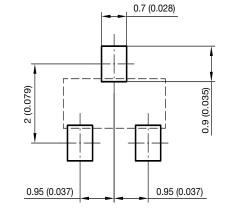
#### PACKAGE DIMENSIONS in millimeters (inches): SOT-23



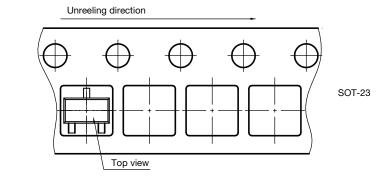




Foot print recommendation:



Document no.: 6.541-5014.01-4 Rev. 8 - Date: 23.Sept.2009 17418



Orientation in carrier tape SOT-23 S8-V-3929.01-006 (4) 04.02.2010 22607



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