1-Line Bidirectional ESD Protection Diode

Primary characteristics			
Parameter	**Symbol**	**Value**	**Unit**
Breakdown Voltage	V_{BR}	5.5-7.0	V
Peak Pulse Power (8/20μs)	P_{PPM}	300	W

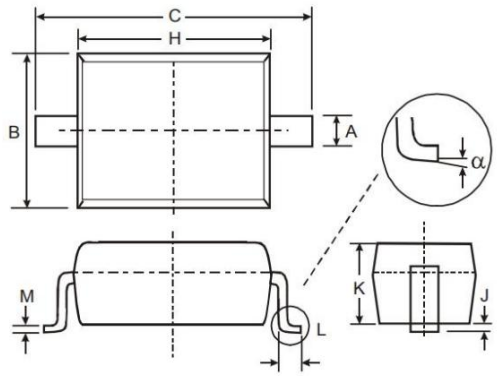
Features

- Bidirectional ESD protection of one line
- Low leakage current: nA Level
- Response time is typically < 1 ns
- RoHS compliant

Applications

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA's)
- Notebooks, desktops and servers

Case dimensions



SOD-323

Sym.	A	B	C	H	J	K	L	M	α
Min.	0.25	1.20	2.40	1.60	0.01	0.70	0.20	0.08	0°
Max.	0.35	1.40	2.70	1.80	0.15	0.90	0.40	0.15	8°

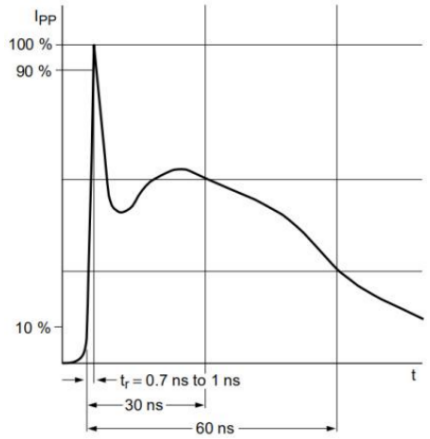
Maximum Ratings (T_{OP} = 25°C unless otherwise specified)				
Parameter	**Conditions**	**Symbol**	**Value**	**Unit**
Peak Pulse Power (t_p=8/20μs)	-	P_{PPM}	300	W
Peak Pulse Current (t_p=8/20μs)	-	I_{PPM}	30	A
ESD Voltage IEC 61000-4-2	air discharge	V_{ESD}	30	kV
ESD Voltage IEC 61000-4-2	contact discharge	V_{ESD}	30	kV
Maximum Lead Temperature	soldering for 10s	T_L	260	℃
Storage Temperature Range	-	T_{stg}	-55 to +150	℃
Operating Temperature Range	-	T_{OP}	-40 to +125	℃

Electrical Characteristics (T_{OP} = 25°C unless otherwise specified)						
Parameter	**Conditions**	**Symbol**	**Value**			**Unit**
			Min.	**Typ.**	**Max.**	
Reverse Working Voltage	-	V_{RWM}	-	-	5.0	V
Breakdown Voltage	I_T=1mA	V_{BR}	5.5	-	7.5	V
Leakage Current	V_{RWM}=5V	I_R	-	-	200	nA
Clamping Voltage	I_{PP}=10A, T_p=8/20μs	V_C	-	-	7.5	V
	I_{PP}=30A, T_p=8/20μs		-	-	10.0	

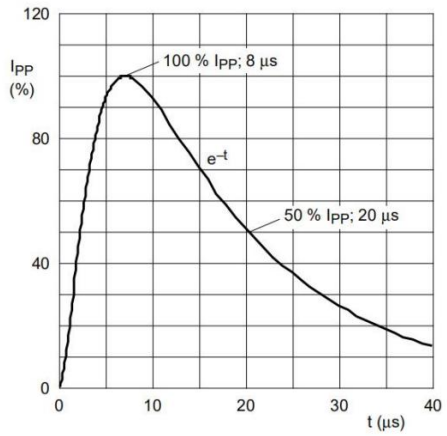
Dynamic Resistance	T_{LP}=0.2/100ns	R_{DYN}	-	0.2	-	Ω
Junction Capacitance	V_R=0V, f=1MHz, Pin1 or 2 to Pin3	C_J	-	65	80	pF
Notes: TLP Setting: t_p=100ns, t_r=0.2ns, ITLP and VTLP sample window: t1=70ns to t2=9						

Typical Characteristics

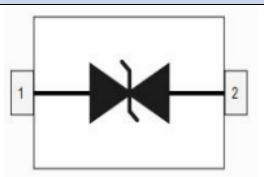
IEC 61000-4-2 Waveform



IEC 61000-4-5 Waveform (8/20µs pulse)



Graphic Symbol



Ordering information

Device	Package	Packaging
SD05C-SL	SOD-323	**3000pcs** / Tape & Reel

Disclaimer

Akyga semi reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Akyga semi or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on Akyga semi data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Akyga semi does not assume any liability arising out of the application or use of any product or circuit. Akyga semi products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Akyga semi. Customers using or selling Akyga semi components for use in such applications do so at their own risk and shall agree to fully indemnify Akyga semi and its subsidiaries harmless against all claims, damages and expenditures.