

350W Bi-directional TVS Diode Array**FEATURES**

- For surface mounted applications
- Low-profile package suited for automatic installed
- Transient protection for data lines

APPLICATIONS

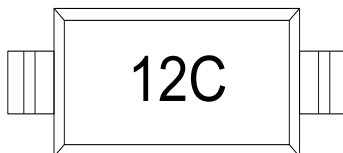
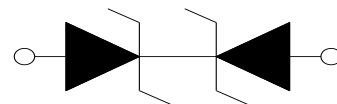
- Use in sensitive electronics protection

MECHANICAL DATA

- Case : Molded, plastic SOD-323
- Polarity : Bi-direction
- Epoxy : UL94-V0 rated flame retardant

IEC COMPATIBILITY

- IEC 61000-4-2(ESD) $\pm 30\text{kV}$ (Air).
- IEC 61000-4-2(ESD) $\pm 30\text{kV}$ (Contact).

SOD-323 PACKAGE**SCHEMATIC & PIN CONFIGURATION**

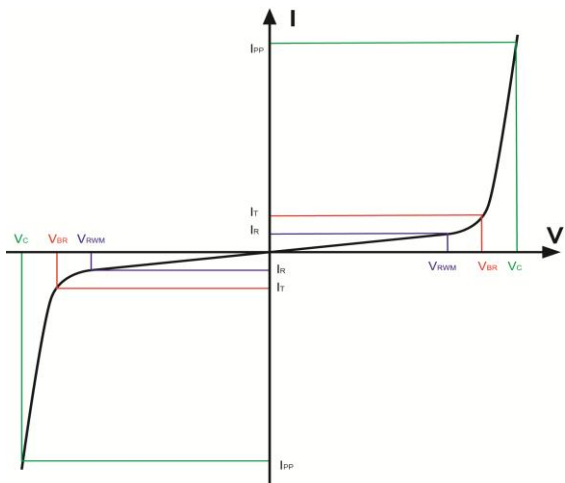
**350W Bi-directional TVS Diode Array****Absolute Maximum Ratings** ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description		Value	Unit
	IEC61000-4-2	Air Discharge	± 30	KV
		Contact Discharge	± 30	KV
V_{ESD}	ESD Voltage per Human Body Model		30	kV
P_D	Toral Power Dissipation on FR-5 Board		350	W
I_{PPM}	Peak Pulse current with a 8/20 μs waveform		15	Amp
T_L	Maximum Lead Temperature for Soldering During 10s		260	$^{\circ}C$
T_J	Operating Temperature Range		-50 to +150	$^{\circ}C$
T_{STG}	Storage Temperature Range		-50 to +150	$^{\circ}C$

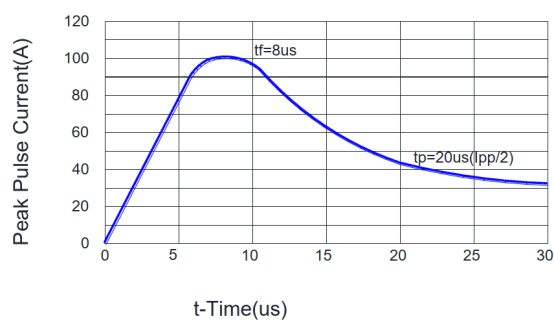
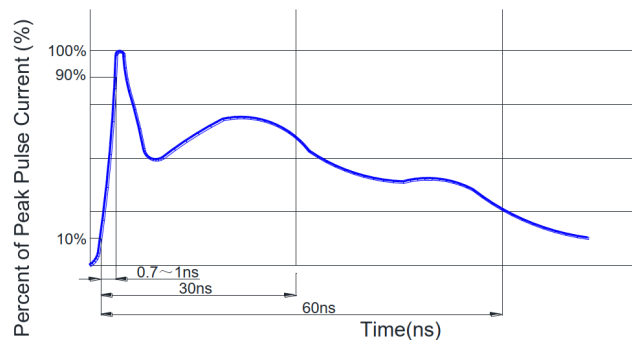
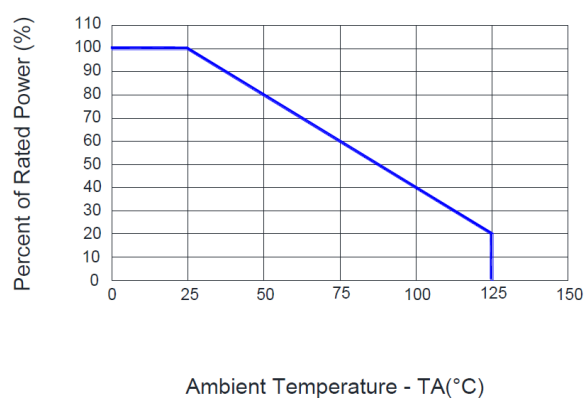
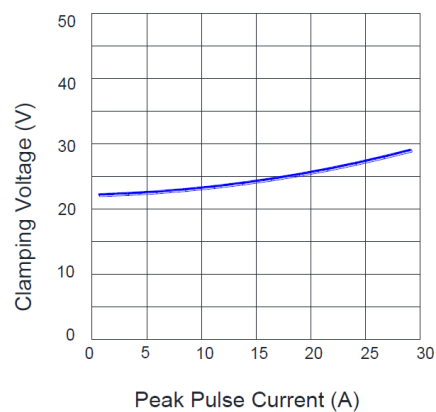
Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{BR}	Breakdown Voltage	$I_T=1.0mA$	13.5	14.2	16.0	Volt
V_F	Forward Voltage	$I_F=200mA$			1.25	Volt
V_{RWM}	Reverse Working Voltage			12.0		Volt
I_R	Reverse Current	$V_R=5V$			0.1	μA
V_C	Clamping Voltage	@ I_{PP}			24	Volt
C_T	Junction Capacitance			80	120	pF

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage@ I_{PP}
V_{RWM}	Reverse Working Voltage
I_R	Maximum Reverse Leakage Current
I_T	Test Current
V_{BR}	Breakdown Voltage@ I_T
I_F	Forward Current
V_F	Forward Voltage@ I_F
C_J	Junction Capacitance



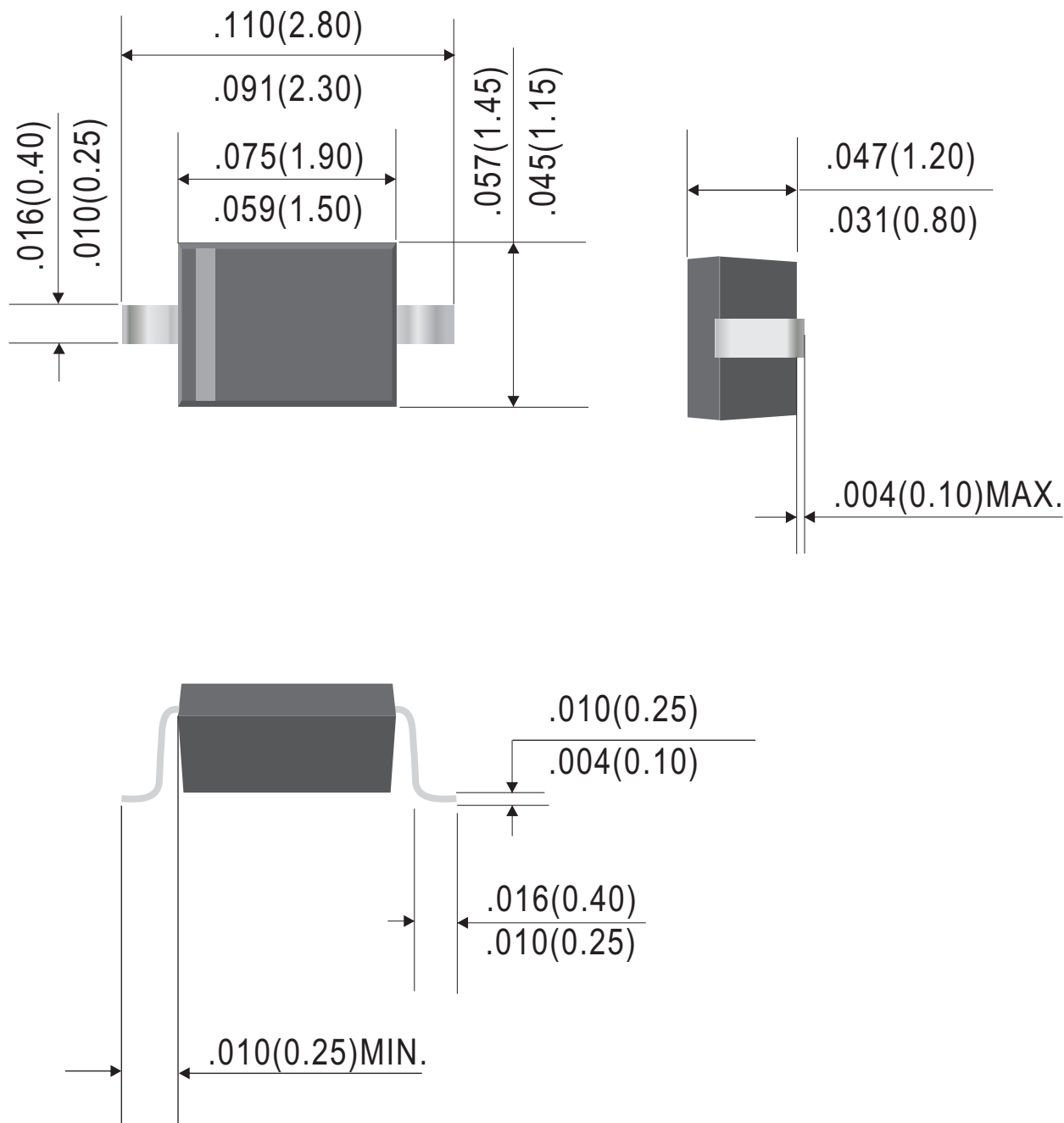
Characteristics Curves

Fig 1. 8/20us Pulse Waveform

Fig 2. ESD Pulse Waveform (according to IEC 61000-4-2)

Fig 3. Power Derating Curve

Fig 4. VC vs. IPP




Outline Drawing

SOD-323



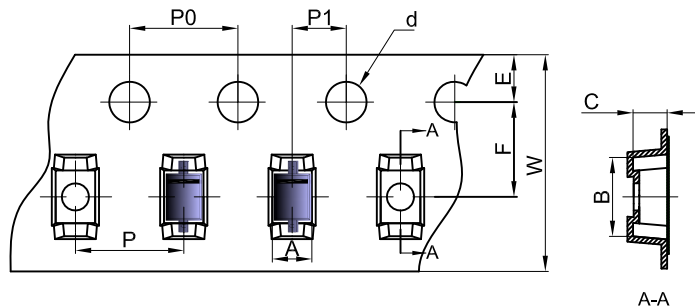
Dimensions in inches and (millimeters)

Rev.F

350W Bi-directional TVS Diode Array

Packing information

SOD-323 Embossed Carrier Tape

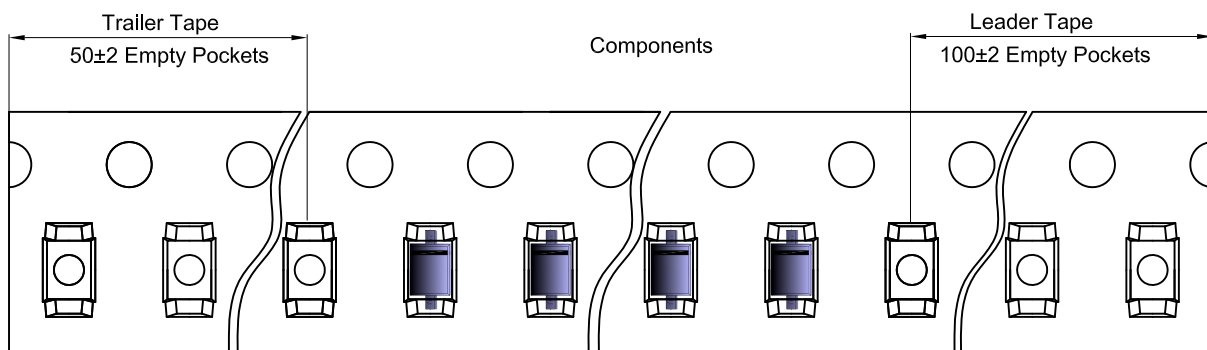


Packaging Description:

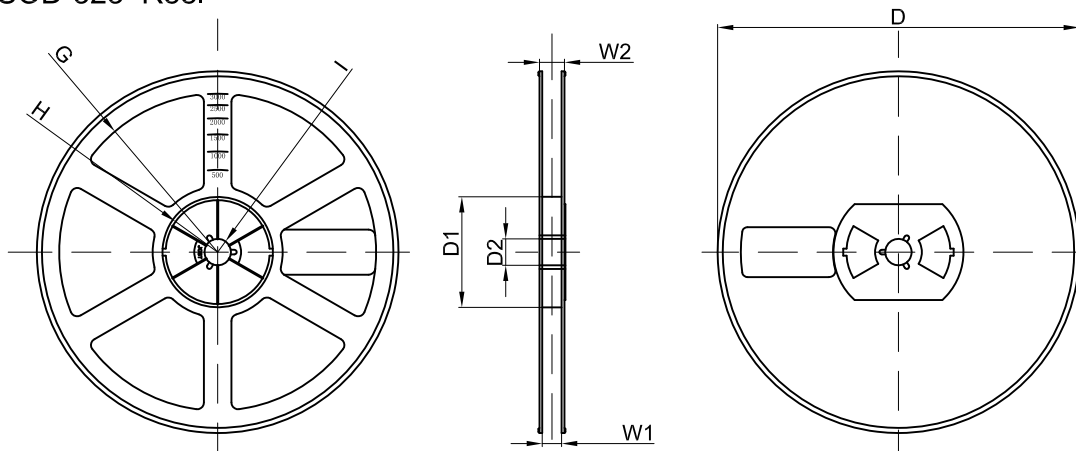
SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.3	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOD-323 Tape Leader and Trailer



SOD-323 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

Ordering Information:

Device PN	Marking ⁽⁴⁾	Packing
SESD3Z12C-T ⁽¹⁾ H ⁽²⁾ -WS ⁽³⁾	12C	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) RoHS product for packing code suffix "G" : Halogen free product for packing code suffix "H"

(3) Willas brand abbreviation, Label Type does not display

(4) There may be additional marking, which relates to the lot trace code information (data code and vendor code), the logo or the environmental category on the device

*****Disclaimer*****

WILLAS reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. WILLAS 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 WILLAS data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. WILLAS does not assume any liability arising out of the application or use of any product or circuit.

This is the preliminary specification. WILLAS 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 WILLAS. Customers using or selling WILLAS components for use in such applications do so at their own risk and shall agree to fully indemnify WILLAS Inc and its subsidiaries harmless against all claims, damages and expenditures.