SOD05H1WS THRU SOD05H8WS

Reverse Voltage - 50 to 1000Volts Forward Current - 0.5 Ampere

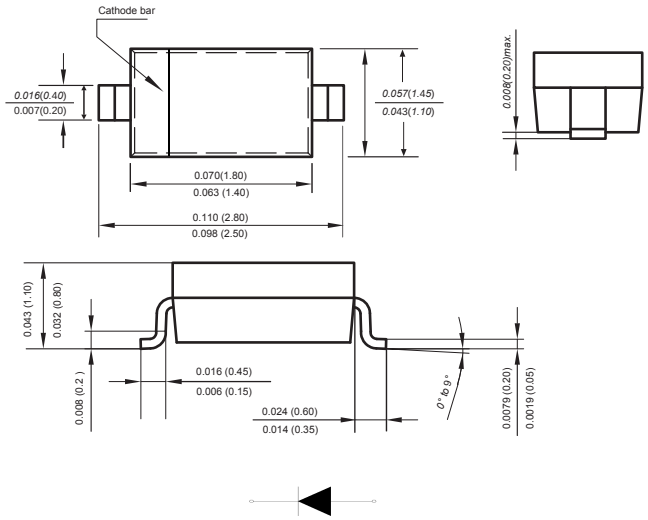
SURFACE MOUNT ULTRA FAST RECOVERY RECTIFIER

Features

SOD-323

RoHS COMPLIANT

- Low forward voltage drop
- Low leakage current
- Low profile package
- For surface mounted applications
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives



Dimensions in inches and (millimeters)

Mechanical Data

Case : SOD-323
Terminals : Solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Appro .Weight : 0.00019 ounce, 0.0548 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter	SYMBOLS	SOD05H1WS	SOD05H2WS	SOD05H3WS	SOD05H5WS	SOD05H6WS	SOD05H7WS	SOD05H8WS	UNITS
Marking Code		U1	U2	U3	U5	U6	U7	U8	
Maximum repetitive peak reverse voltage	V_{RMM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at Tc = 125 °C	$I_{F(AV)}$	0.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	15							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.0				1.30		1.65	V
Maximum DC reverse current at rated DC blocking voltage TA=25℃ / TA=125℃	I_R	5 / 100							uA
Typical junction capacitance (NOTE 3)	C_J	8							pF
Typical reverse recovery time (NOTE 2)	T_{rr}	50				75			ns
Operating junction temperature range	T_J	-55 to +150							℃
Storage temperature range	T_{STG}	-55 to +150							℃

Note:1.P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.
2.Measured with IF=0.5A,IR =1A,Irr=0.25A
3.Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
4.The typical data above is for reference only.

Typical Characterisitics

Fig.1 Forward Current Derating Curve

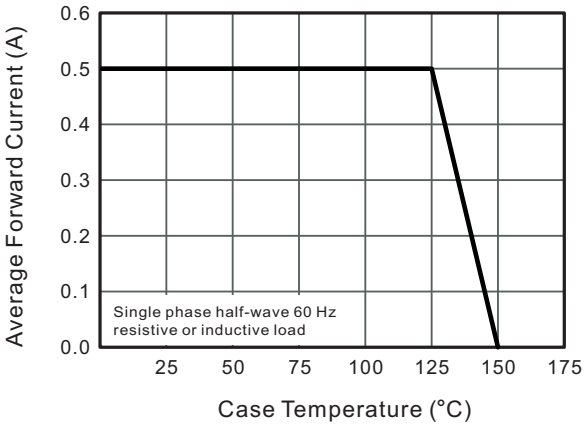


Fig.2 Typical Instaneous Reverse Characteristics

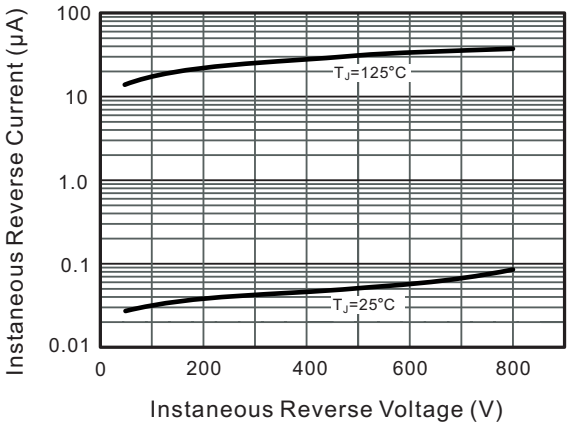


Fig.3 Typical Instaneous Forward Characteristics

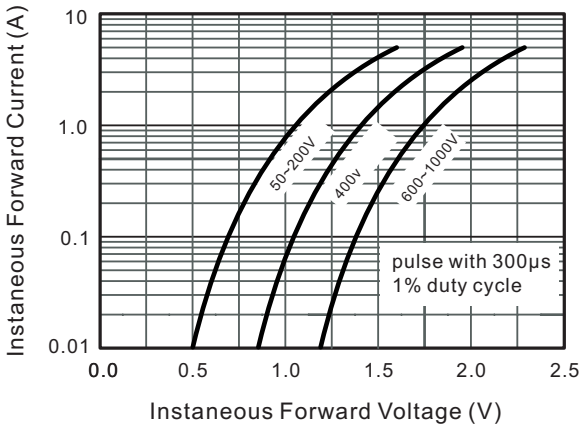


Fig.4 Typical Junction Capacitance

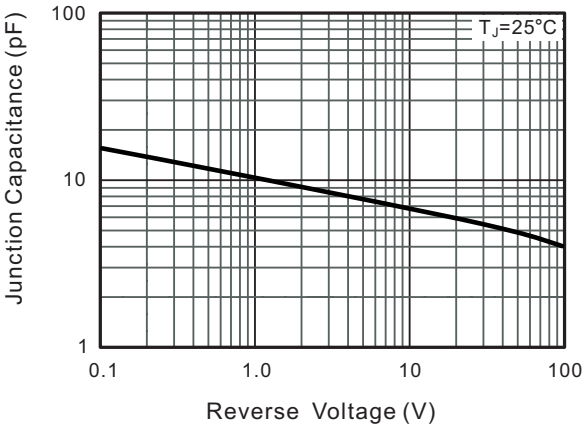
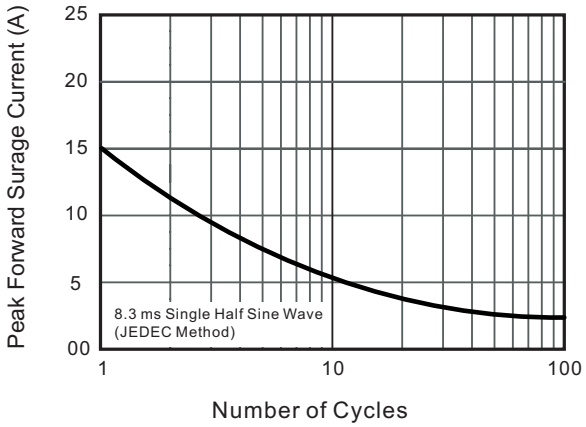
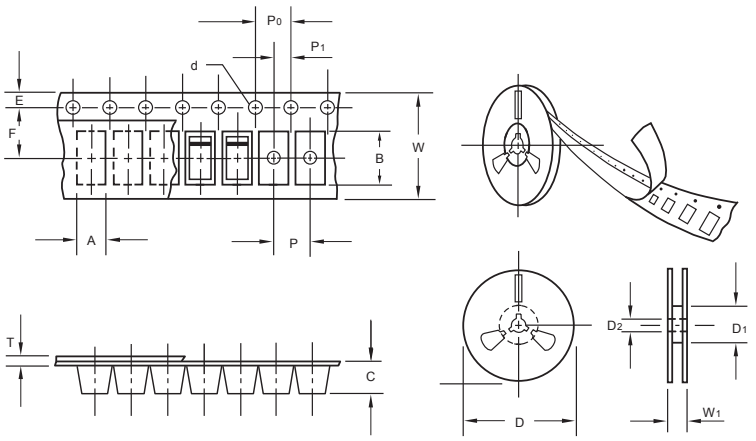


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



The curve above is for reference only.

Packing information



unit:mm

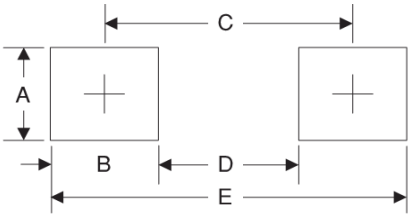
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	1.46
Carrier length	B	0.1	2.90
Carrier depth	C	0.1	1.25
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D_1	min	50.00
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D_1	min	54.40
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.06
Tape width	W	0.3	8.00
Reel width	W_1	1.0	12.30

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-323	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	9.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	2.6	0.141
D	1.4	0.055
E	3.8	0.149