



SURFACE MOUNT ULTRA FAST RECOVERY RECTIFIER

Features

- ◆ 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

SOD-323



Maximum Ratings And Electrical Characteristics

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 T _C = 125 °C	I _{F(AV)}	0.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated 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 T _A =25°C at rated DC blocking voltage T _A =125°C	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							°C
Storage temperature range	T _{STG}	-55 to +150							°C

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, I_{rr}=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 Characteristics

Fig.1 Forward Current Derating Curve

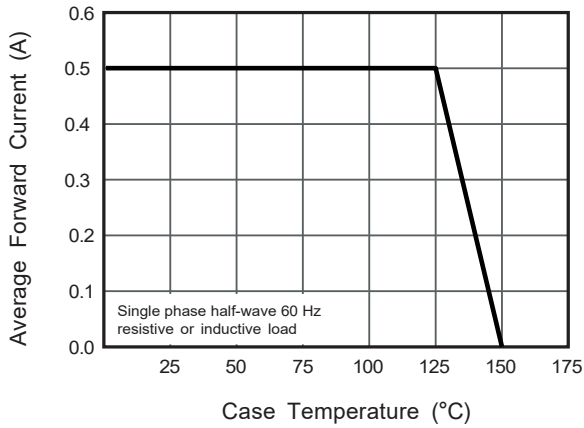


Fig.2 Typical Instantaneous Reverse Characteristics

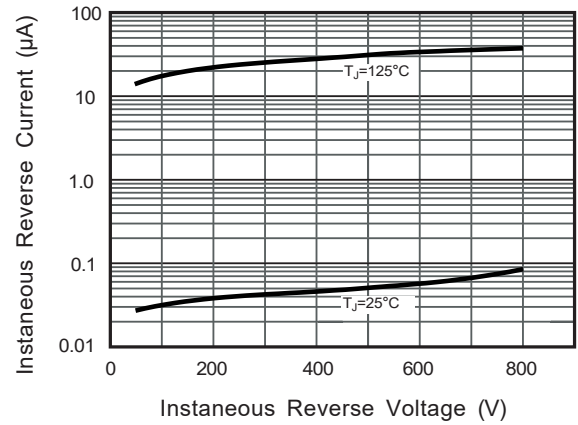


Fig.3 Typical Instantaneous Forward Characteristics

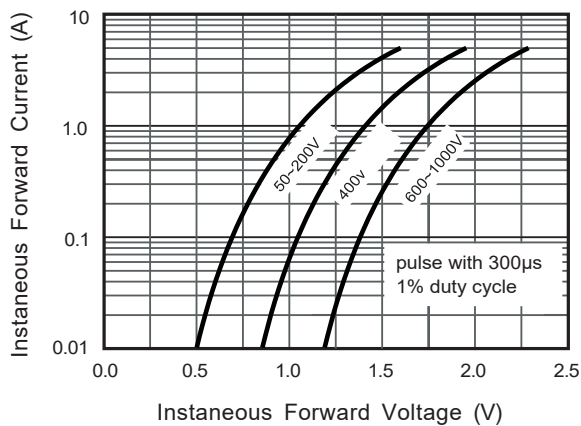


Fig.4 Typical Junction Capacitance

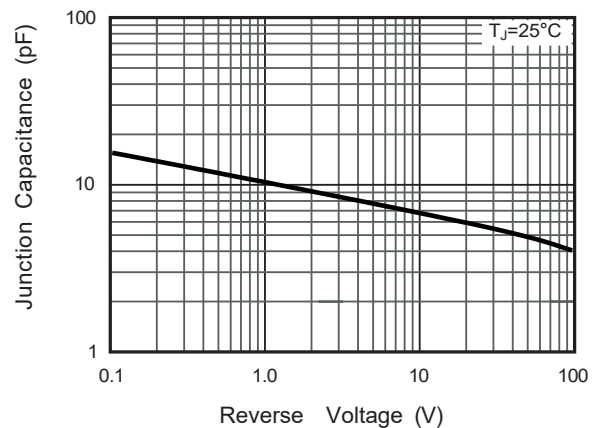
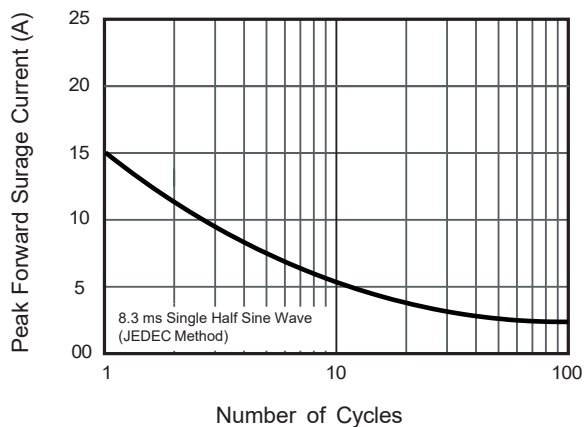


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.