



Glass passivated rectifier

Features

- 1. Glass passivated die construction
- 2. Ideal for surface mounted applications
- 3. Low leakage current
- 4. Voltage range 50 to 1000 volts
- 5. High reliability



Applications

General-purpose rectification

Absolute Maximum Ratings

T_j=25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage =Working peak reverse voltage =DC blocking voltage		SM4001	V _{RRM} = V _{RWM} = V _R	50	V
		SM4002		100	V
		SM4003		200	V
		SM4004		400	V
		SM4005		600	V
		SM4006		800	V
		SM4007		1000	V
Peak forward surge current			I _{FSM}	30	A
Average forward current	T _A =75°C		I _{FAV}	1	A
Junction temperature			T _j	-65~+175	°C
Storage temperature range			T _{stg}	-65~+175	°C

Electrical Characteristics

T_j=25°C

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	I _F =1A	V _F			1.1	V
Maximum full load reverse current, full cycle average	T _A =75°C	I _R			30	μ A
Maximum DC average reverse Current at DC blocking voltage	T _A =25°C				5	μ A
	T _A =125°C				50	μ A
Typical junction capacitance	V _R =4V, f=1MHz	C _J		15		pF

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Characteristics ($T_j=25^{\circ}\text{C}$ unless otherwise specified)

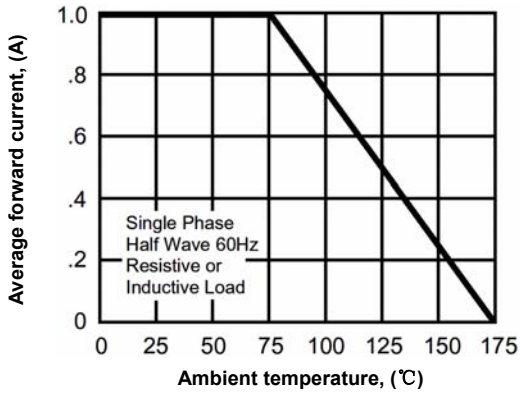


Figure 1. Typical forward current derating curve

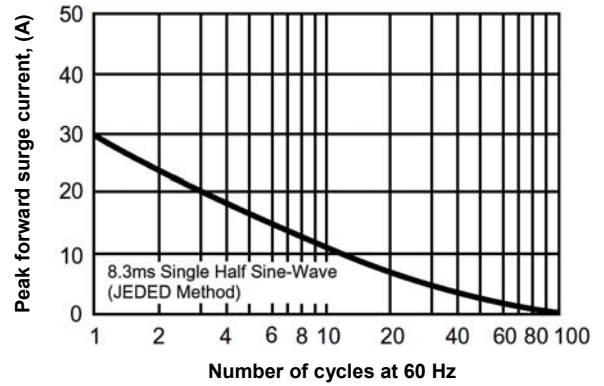


Figure 2. Max. non-repetitive forward surge current

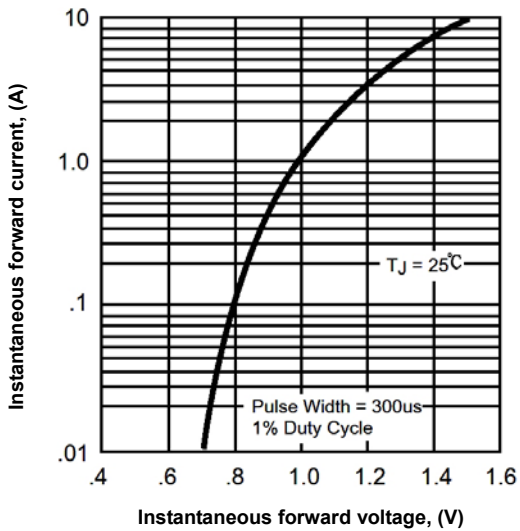


Figure 3. Typical instantaneous forward characteristics

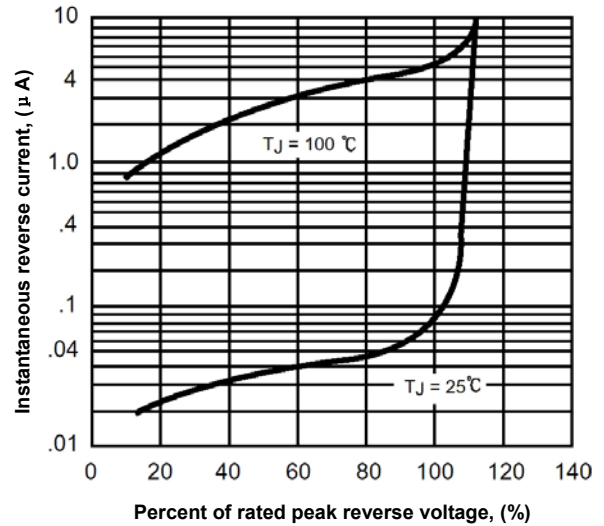


Figure 4. Typical reverse characteristics

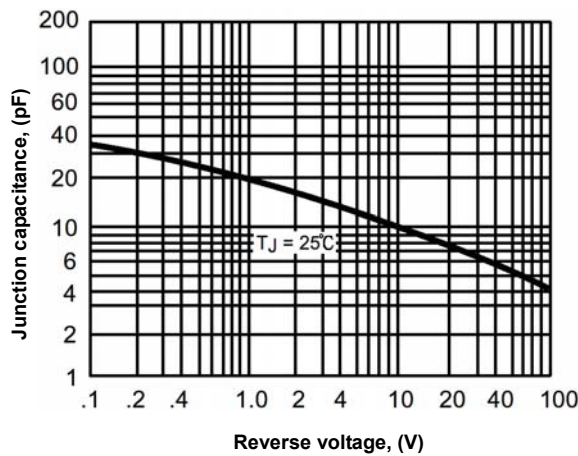
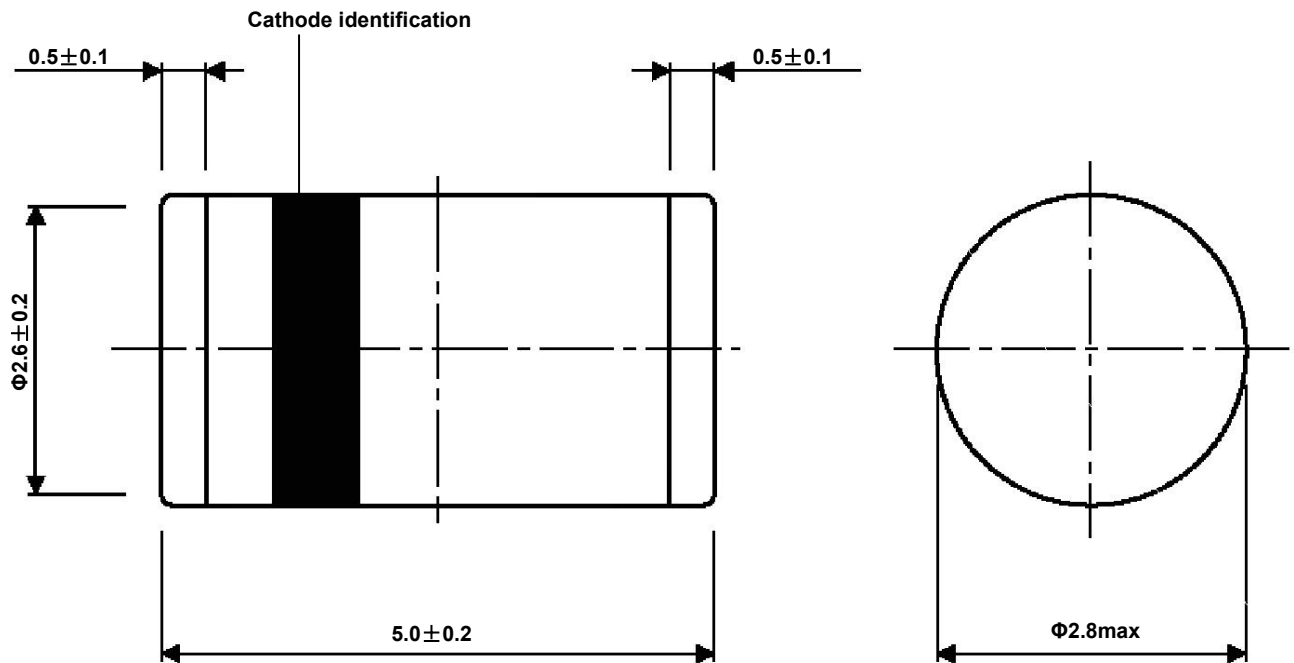


Figure 5. Typical junction capacitance

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Dimensions in mm



MELF