

SM1200 THRU SM2000

SURFACE MOUNT GLASS PASSIVATED RECTIFIER

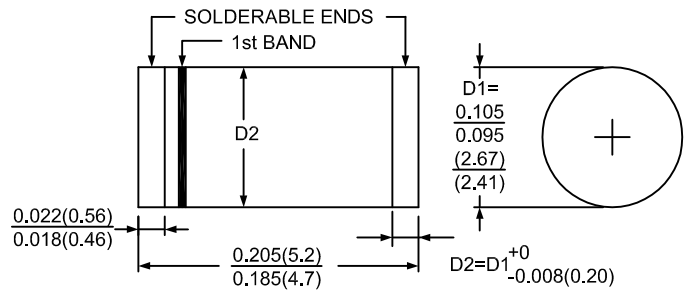
FEATURES

- Glass Passivated chip
- Low Forward Voltage Drop
- Low Leakage
- High Current Capability
- High Surge Current Capability
- Idle for surface mount applications
- Built-in strain relief

MELF / DO-213AB

MECHANICAL DATA

- Case: Molded plastic use UL 94V-0 recognized flame retardant epoxy
- Terminals : Plated terminals, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Silver color band on body denotes cathode
- Mounting Position : Any
- Weight : 0.116 grams, 0.0046 ounce
- Lead Free: For RoHS/Lead Free Version, Green molding compound as per IEC61249 Std



1st band denotes type positive and (cathode)

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Parameter Symbol	Symbol	SM1200	SM1400	SM1800	SM1600	SM2000	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1200	1400	1800	1600	2000	V
Maximum RMS voltage	V_{RMS}	840	980	1120	1260	1400	V
Maximum DC blocking voltage	V_{DC}	1200	1400	1800	1600	2000	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0					A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{Fsm}	30					A
Maximum instantaneous forward voltage at 1A	V_F	1.15					V
Maximum leakage current $T_J = 25^{\circ}\text{C}$ Maximum leakage current $T_J = 100^{\circ}\text{C}$	I_R	5 50					μA
Typical Junction Capacitance (Note1)	C_J	25	18				pF
Typical thermal resistance (Note2)	R_{thA}	≤ 50					$^{\circ}\text{C}/\text{W}$
Operating temperature range	T_J	-55 to +175					$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +175					$^{\circ}\text{C}$

Note: (1). Measured at 1.0MHz and applied reverse voltage of 4.0VDC
 (2). Thermal resistance from junction to ambient at , **P.C.B.** mounted.

Fig. 1 Rated forward current vs. ambient temperature

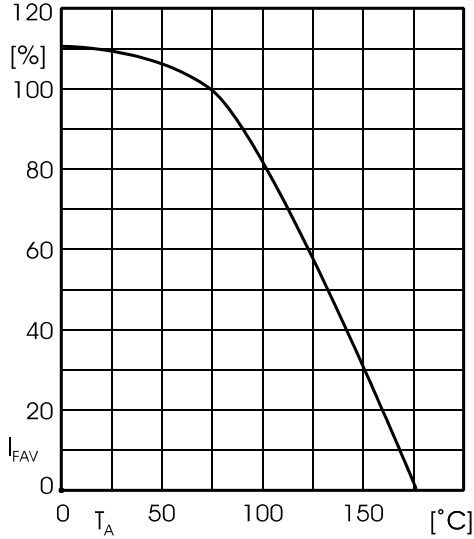


Fig. 2 Forward characteristics (typical values)

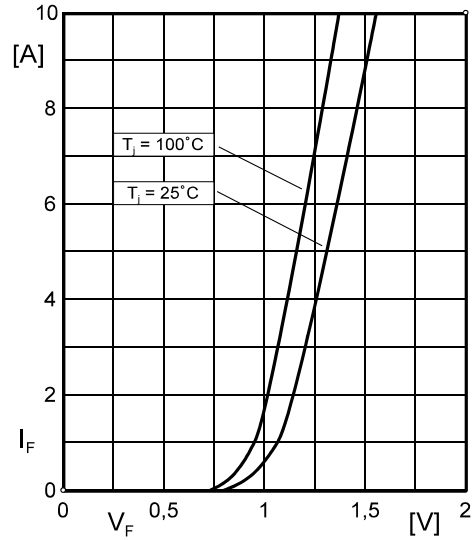


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

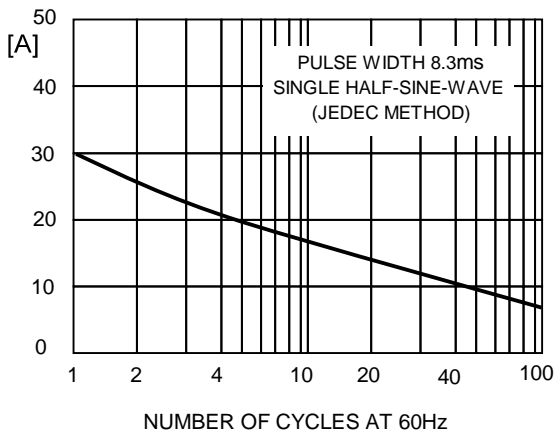


FIG.4-TYPICAL REVERSE CHARACTERISTICS

