

S01M

SURFACE MOUNT SUPER FAST RECTIFIERS

PRV : 1000 Volts

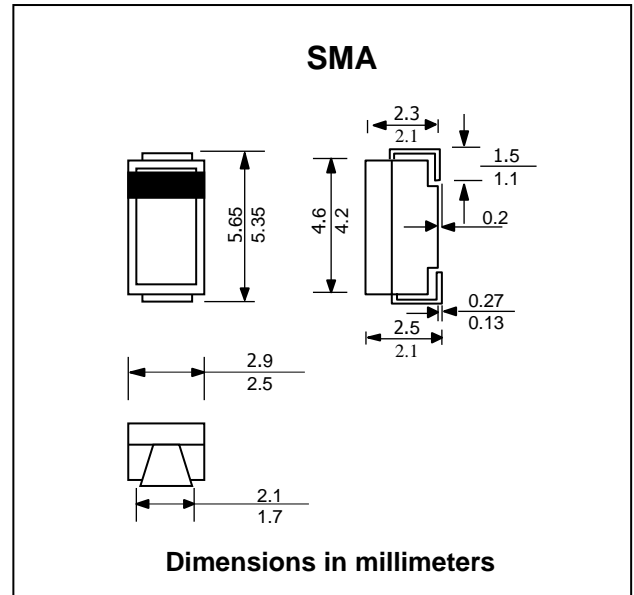
Io : 1.0 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Super fast recovery time
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.060 gram (Approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Current $T_a = 55\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	1.0	A
Maximum Peak Forward Surge Current 8.3 ms. Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30	A
Maximum Peak Forward Voltage at $I_F = 0.1\text{ A}$	V_F	12	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35	ns
Typical Junction Capacitance (Note 2)	C_J	50	pF
Operating Junction Temperature Range	T_J	- 65 to + 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150	$^{\circ}\text{C}$

Notes :

- (1) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$.
- (2) Measured at 1.0 MHz and applied reverse voltage of $4.0\text{ }V_{DC}$

RATING AND CHARACTERISTIC CURVES (S01M)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

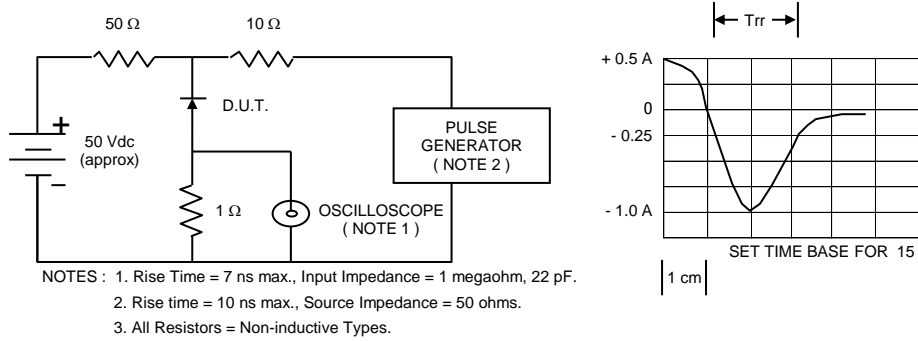


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

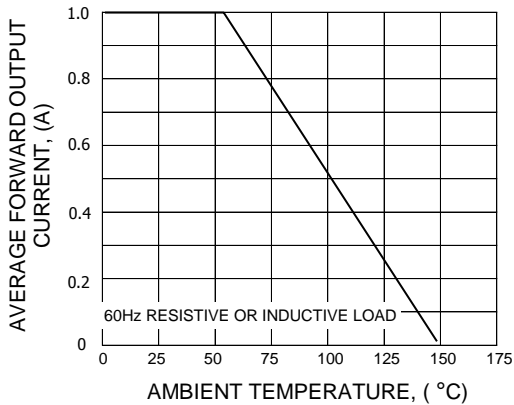


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

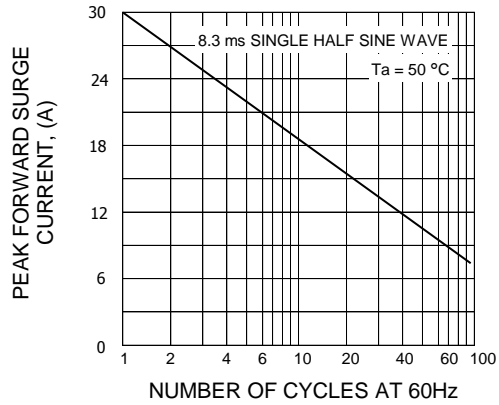


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

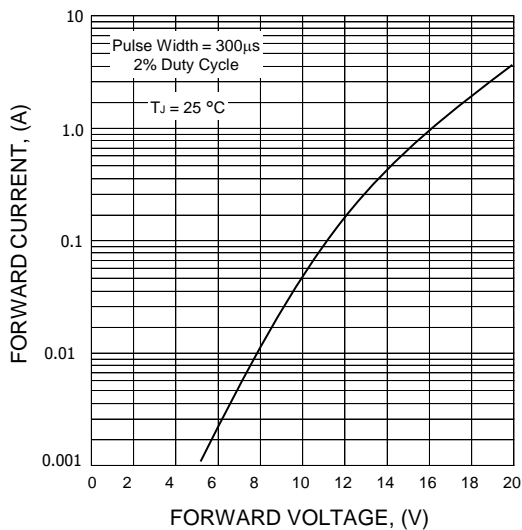


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

