

SU01S

HIGH VOLTAGE ULTRAFAST RECTIFIER DIODE

PRV : 3000 Volts

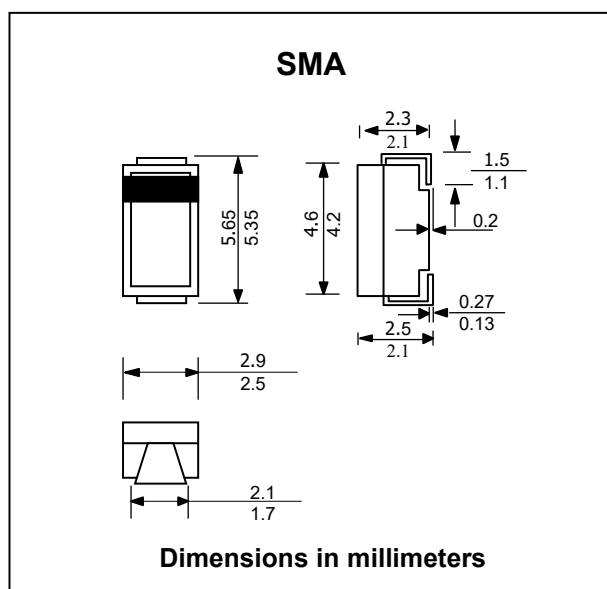
Io : 0.1 Ampere

FEATURES :

- * Glass passivated junction chip
- * High voltage capability
- * Fast switching for high efficiency
- * High reliability
- * Low reverse current
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.20 gram (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	3000	V
Maximum Average Forward Current , (50 Hz Sine Wave)	$I_{F(AV)}$	0.1	A
Non-Repetitive Peak Forward Surge Current 50 Hz Sine Half Wave Peak Value	I_{FSM}	3	A
Maximum Forward Voltage at $I_F = 100\text{ mA}$	V_F	12	V
Maximum Reverse Current $V_R = 3\text{ KV}$ $V_R = 3\text{ KV}, 100\text{ }^\circ\text{C}$	I_R	2.0 100.0	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	75	ns
Maximum Junction Capacitance (Note 2)	C_J	4	pF
Allowable Operating Case Temperature	T_C	100	$^\circ\text{C}$
Operating Junction Temperature Range	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 40 to + 150	$^\circ\text{C}$

Note : (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 volts.

RATING AND CHARACTERISTIC CURVES (SU01S)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

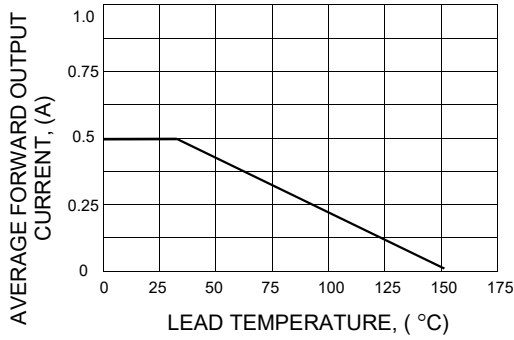


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

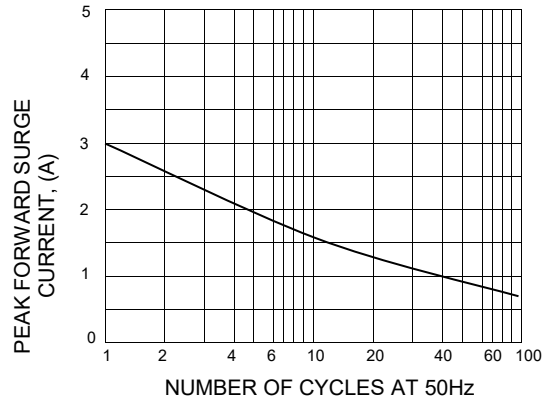


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

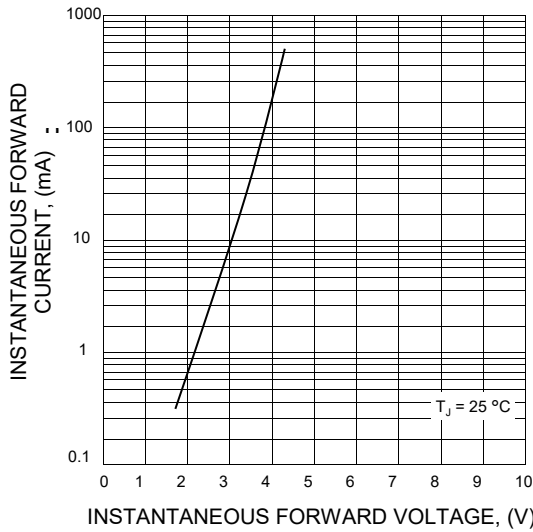


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

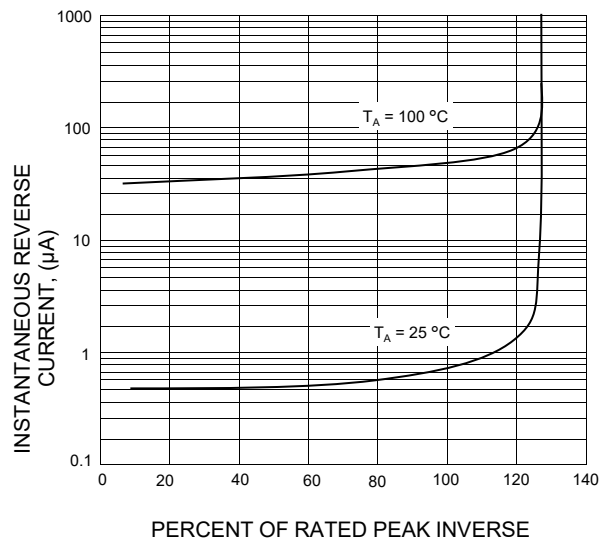


FIG.5 - TYPICAL JUNCTION CAPACITANCE

