

# SE1N

## HIGH VOLTAGE ULTRAFAST RECTIFIER DIODE

**PRV : 1200 Volts**

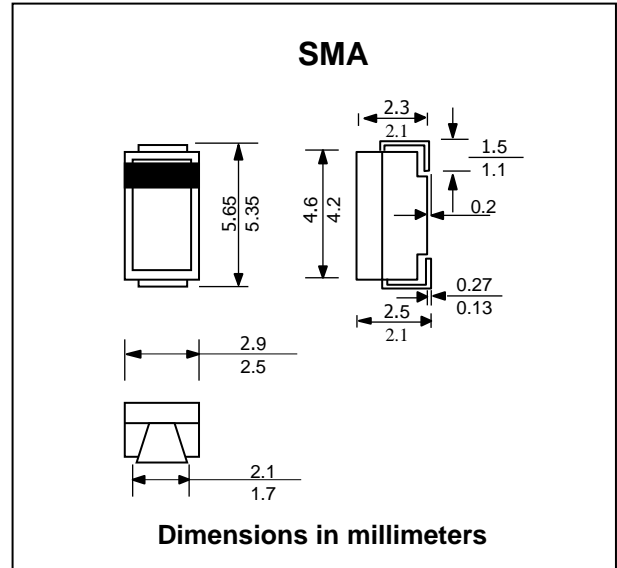
**Io : 1.0 Ampere**

**FEATURES :**

- \* Glass passivated junction chip
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Fast recovery time
- \* **Pb Free / RoHS Compliant**

**MECHANICAL DATA :**

- \* Case : SMA Molded plastic
- \* Epoxy : UL94V-0 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.

RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1200	V
Maximum RMS Voltage	$V_{RMS}$	840	V
Maximum DC Blocking Voltage	$V_{DC}$	1200	V
Maximum Average Forward Current $T_a = 75^{\circ}C$ at 8.3 ms Single Half sine-wave	$I_{F(AV)}$	1.0	A
Maximum Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	30	A
Maximum Peak Forward Voltage at $I_F = 1.0 A$	$V_F$	2.2	V
Maximum DC Reverse Current $T_j = 25^{\circ}C$	$I_R$	5.0	$\mu A$
at Rated DC Blocking Voltage $T_j = 100^{\circ}C$	$I_{R(H)}$	50	$\mu A$
Reverse Recovery Time (Note 1)	$T_{rr}$	75	ns
Operating Junction Temperature Range	$T_J$	- 40 to + 150	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	- 40 to + 150	$^{\circ}C$

**Note :**

(1) Reverse Recovery Test Conditions :  $I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A.$

## RATING AND CHARACTERISTIC CURVES ( SE1N )

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

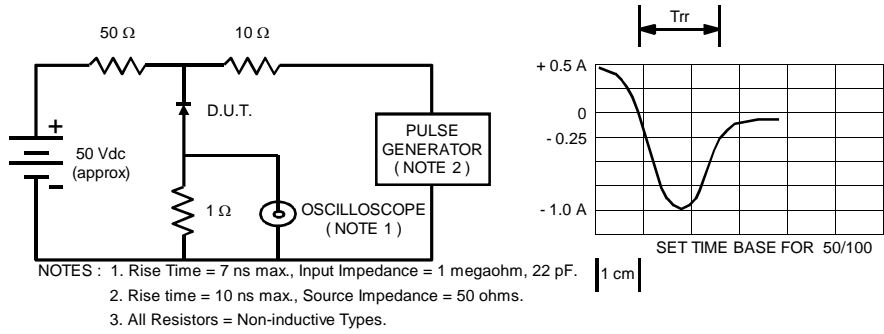


FIG. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

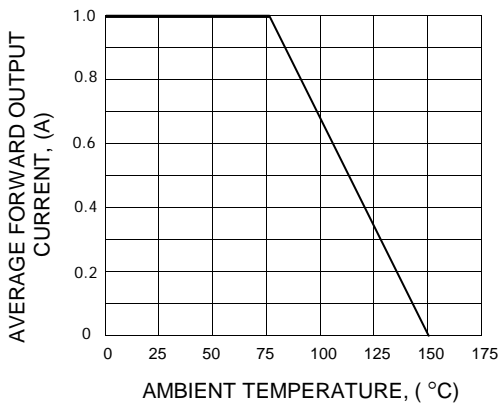


FIG. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

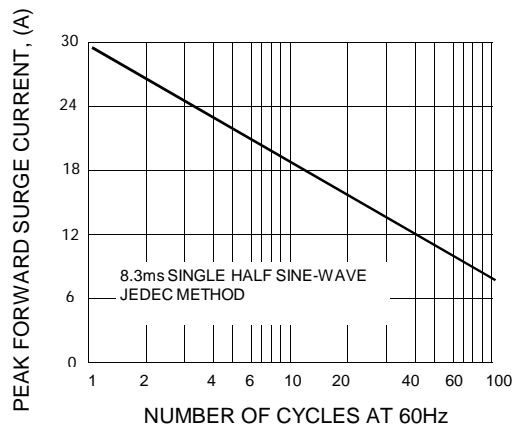


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

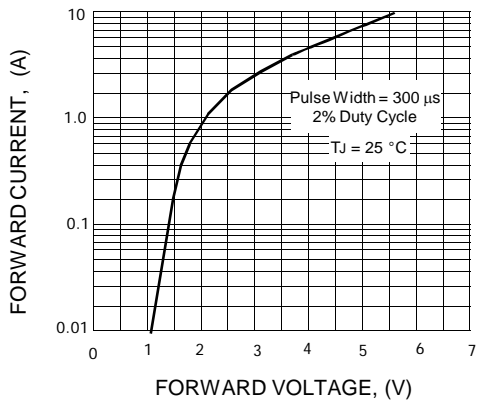


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

