

# UH13045

**PRV : 1300 Volts**  
**I<sub>o</sub> : 0.45 Ampere**

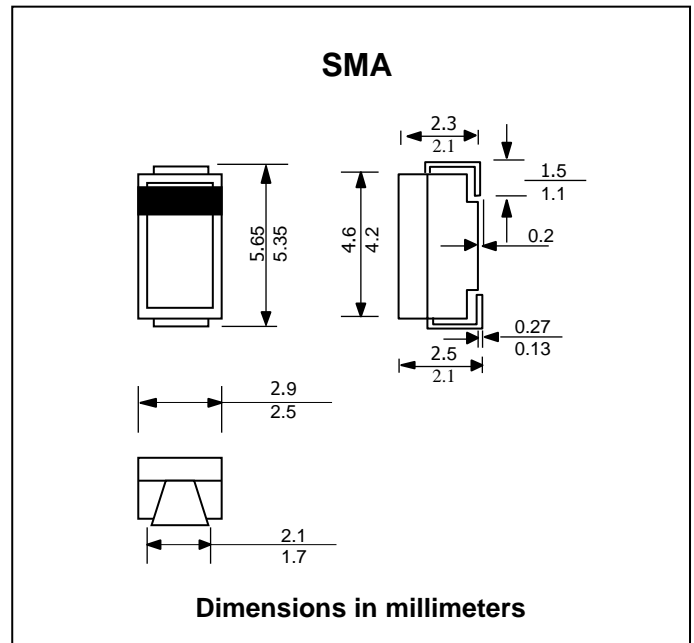
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **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)

# HIGH VOLTAGE ULTRAFAST RECTIFIER DIODES



## 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 <sub>RRM</sub>	1300	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	0.45	A
Maximum Peak Forward Surge Current	I <sub>FSM</sub>	10	A
Maximum Forward Voltage at I <sub>F</sub> = 100 mA	V <sub>F</sub>	2.4	V
Maximum Reverse Current at V <sub>R</sub> = V <sub>RRM</sub> Ta = 25 °C	I <sub>R</sub>	0.5	µA
Maximum Reverse Recovery Time ( Note 1 )	T <sub>rr</sub>	75	ns
Thermal Resistance from Junction to Case	R <sub>th(j-c)</sub>	22	°C/W
Typical Junction Capacitance ( Note 2 )	C <sub>J</sub>	9	pF
Junction Temperature Range	T <sub>J</sub>	- 65 to + 175	°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 175	°C

### Note :

- (1) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>rr</sub> = 0.25 A.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC

## RATING AND CHARACTERISTIC CURVES ( UH13045 )

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

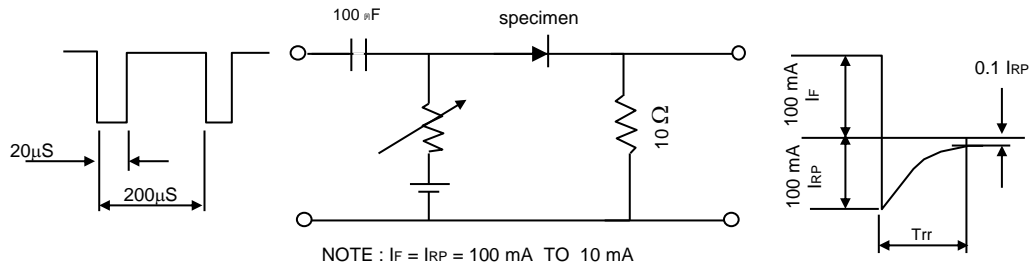


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

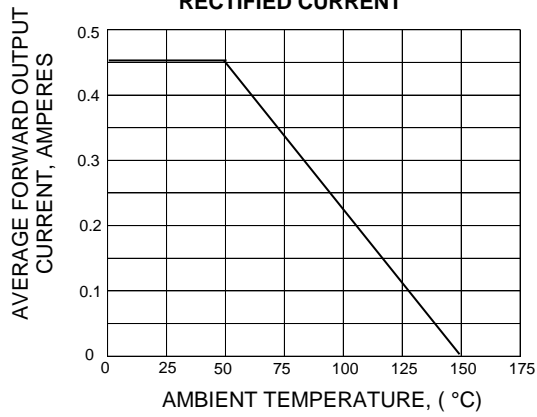


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

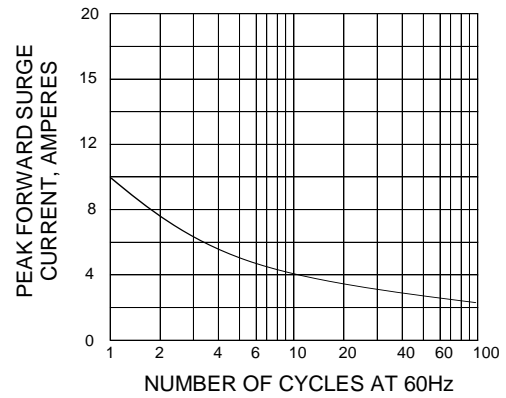


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

