

# MU3D

## SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE: 200V

CURRENT: 3.0A



### FEATURE

Plastic package has Underwriters Laboratories Flammability Classification 94V-  
Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes  
Ultrafast recovery time for high efficiency  
High surge capability  
High temperature soldering guaranteed  
260°C/10sec/at terminals  
Glass passivated chip

### MECHANICAL DATA

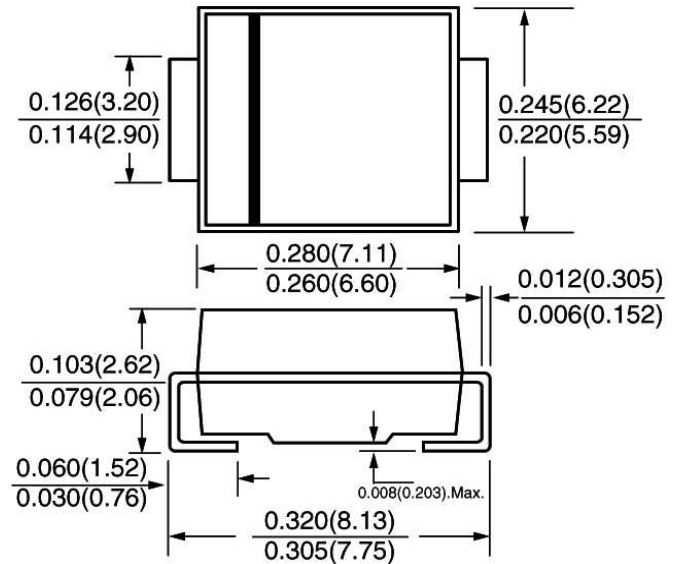
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Case:** JEDEC DO-214AB molded plastic body over passivated chip

**Polarity:** Color band denotes cathode end

**Weight:** 0.007 ounce, 0.21 gram

### SMC / DO-214AB



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

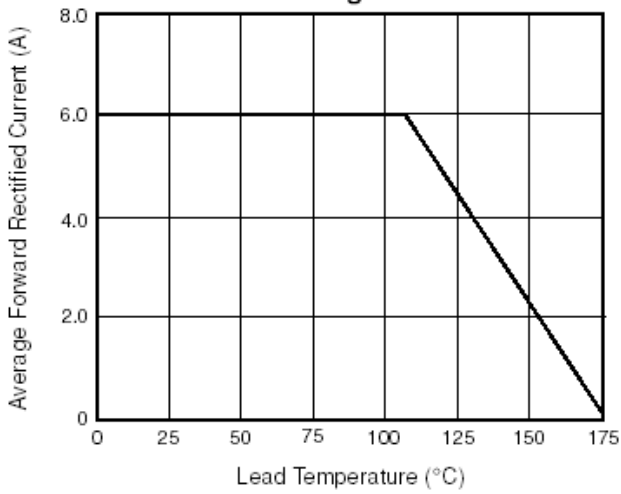
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	SYMBOL	MU3D	units
	L		
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	200	V
Maximum RMS Voltage	V <sub>rms</sub>	140	V
Maximum DC blocking Voltage	V <sub>dc</sub>	200	V
Maximum Average Forward Rectified Current I <sub>f(av)</sub> at T <sub>L</sub> =140°C Current 3/8" lead length at : T <sub>L</sub> =130°C	I <sub>f(av)</sub>	3.0 4.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	125.0	A
Maximum Instantaneous Forward Voltage at rated forward current T <sub>J</sub> =25°C I <sub>f</sub> =3.0A	V <sub>f</sub>	0.875	V
Maximum DC Reverse Current Ta=25°C at rated DC blocking voltage Ta=150°C	I <sub>r</sub>	5.0 150.0	μA μA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	25	nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	80	pF
Typical Thermal Resistance, junction to lead	R(jl)	11	°C/W
Storage and Operating Junction Temperature	T <sub>stg</sub> , T <sub>J</sub>	-50 to +175	°C

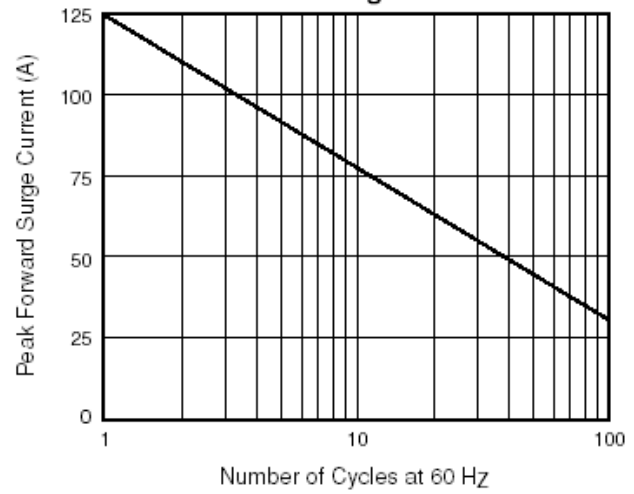
### Note:

1. Reverse Recovery Condition I<sub>f</sub> = 0.5A, I<sub>r</sub> = 1.0A, I<sub>rr</sub> = 0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

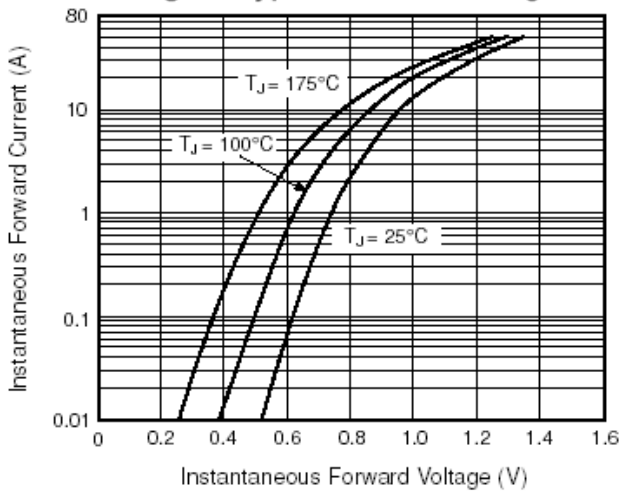
**Fig. 1 – Forward Current Derating Curve**



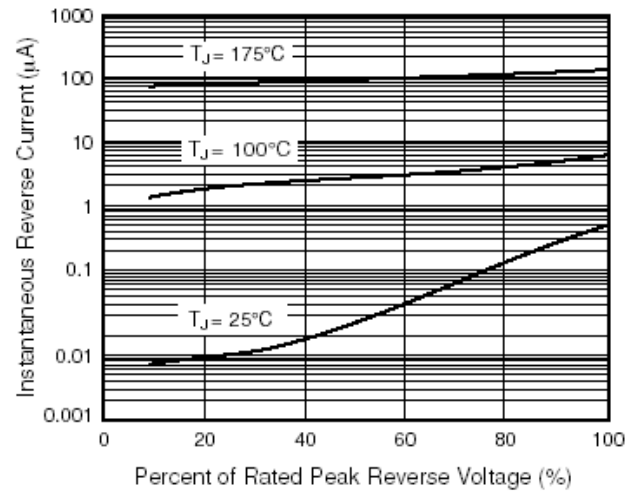
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Forward Voltage**



**Fig. 4 – Typical Reverse Leakage Characteristics**



**Fig. 5 – Typical Junction Capacitance**

