

# LMK12 - LMK1B

**PRV : 20 - 100 Volts**  
**I<sub>o</sub> : 1.0 Ampere**

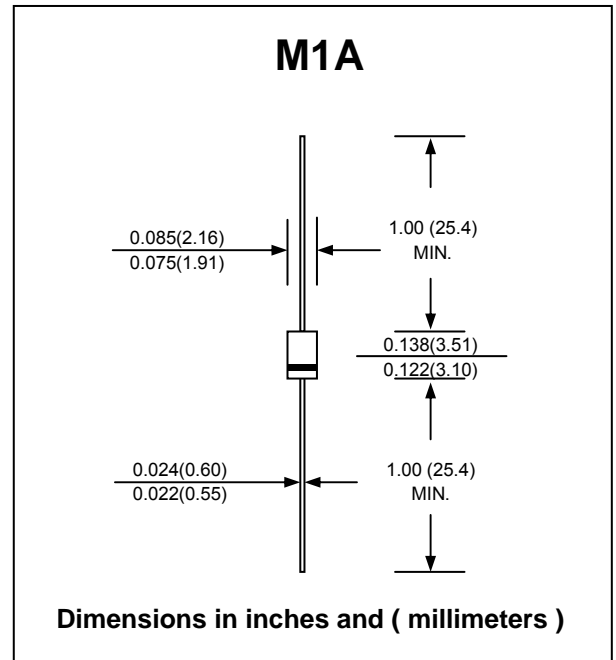
## FEATURES :

- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low power loss
- \* Low forward voltage drop
- \* Low leakage
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case : M1A Molded plastic
- \* Epoxy : UL94V-O 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)

# SCHOTTKY BARRIER RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	LMK	LMK	LMK	LMK	LMK	LMK	LMK	LMK	UNIT
		12	13	14	15	16	18	1B		
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100		V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70		V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100		V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length	I <sub>F(AV)</sub>	1.0								A
Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40								A
Maximum Forward Voltage at I <sub>F</sub> = 1.0 A (Note 1)	V <sub>F</sub>	0.55		0.70		0.85				V
Maximum Reverse Current at Ta = 25 °C	I <sub>R</sub>	1.0								mA
Rated DC Blocking Voltage Ta = 100 °C	I <sub>R(H)</sub>	10								mA
Typical Thermal Resistance (Note 2)	R <sub>θJL</sub>	15								°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 65 to + 125				- 65 to + 150				°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 150								°C

### Notes :

- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.
- (2) Thermal Resistance from junction to lead, PC board Mounting with 0.375" (9.5mm) Lead Lengths.

## RATING AND CHARACTERISTIC CURVES ( LMK12 - LMK1B )

FIG.1 - FORWARD CURRENT DERATING CURVE

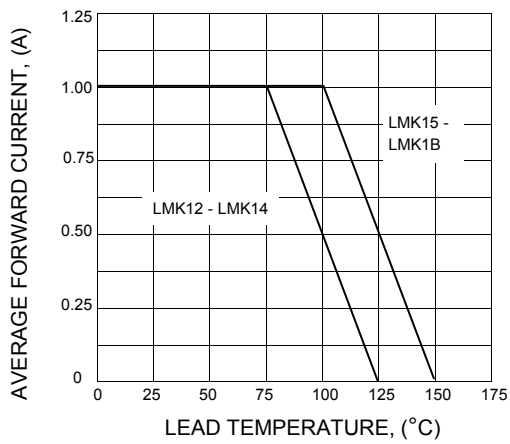


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

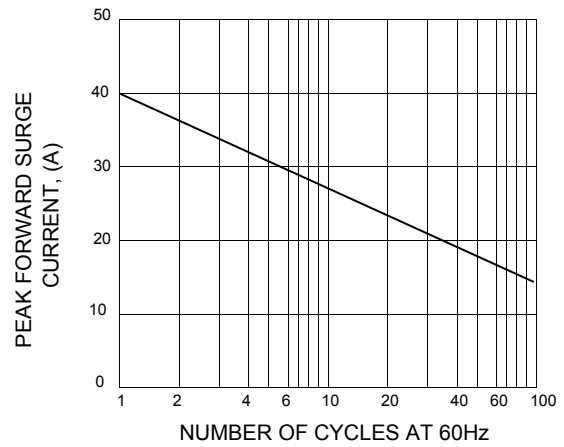


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

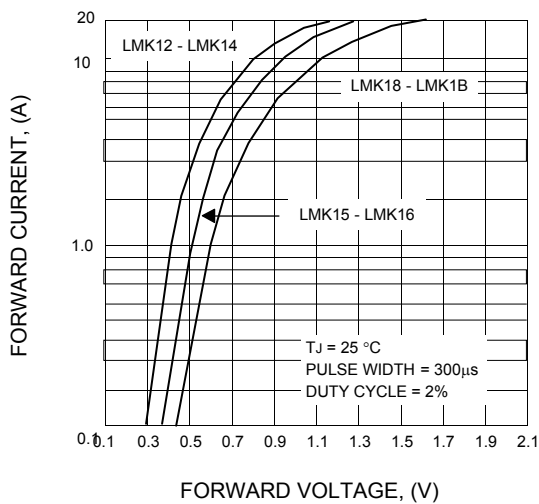


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

