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LMS1DS - LMS1GS

GLASS PASSIVATED JUNCTION SUPER FAST RECTIFIERS

PRV : 200 - 400 Volts
Io : 1.0 Ampere

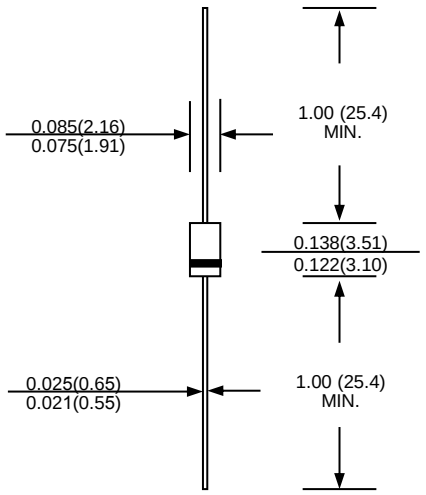
FEATURES :

* Glass passivated junction chip
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Super fast recovery time
* 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)

M1A



Dimensions in inches and (millimeters)

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%.

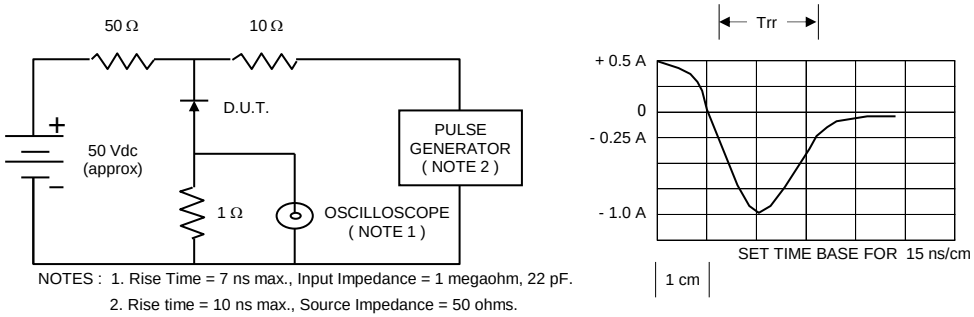
RATING	SYMBOL	LMS1DS	LMS1GS	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	V
Maximum RMS Voltage	V_{RMS}	140	280	V
Maximum DC Blocking Voltage	V_{DC}	200	400	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	$I_{F(AV)}$	1.0		A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method)	I_{FSM}	30		A
Maximum Peak Forward Voltage at I_F = 1.0 A.	V_F	0.95	1.5	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0	10	µA
Maximum Reverse Recovery Time (Note 1)	Trr	35		ns
Typical Thermal Resistance (Note 2)	$R_{\Theta JA}$	60		°C/W
Typical Junction Capacitance (Note 3)	C_J	50		pF
Junction Temperature Range	T_J	- 65 to + 150		°C
Storage Temperature Range	T_{STG}	- 65 to + 150		°C

Notes :

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.
(2) Thermal resistance from junction to ambient, Vertical PC board mounting, 0.375"(9.5mm) Lead Length.
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}

RATING AND CHARACTERISTIC CURVES (LMS1DS - LMS1GS)

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



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE CURRENT

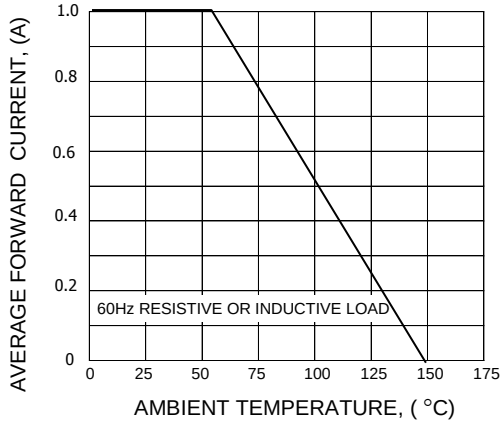


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

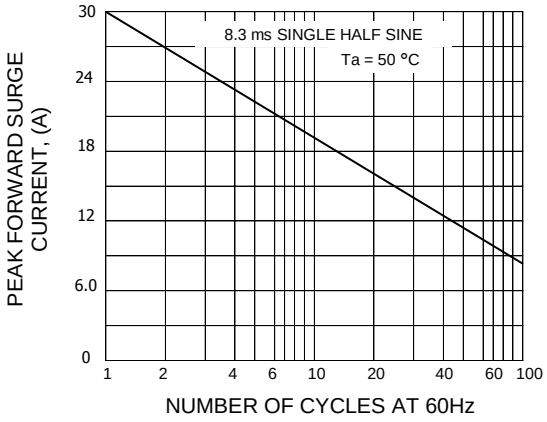


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

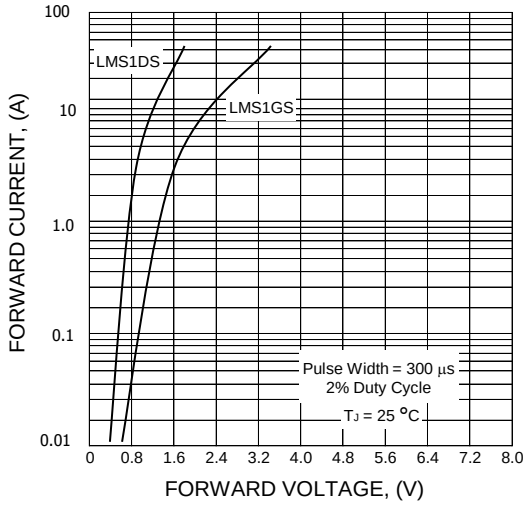


FIG.5 - TYPICAL REVERSE CHARACTERISTICS