S2L20U

SUPER FAST RECTIFIER DIODE

PRV : 200 Volts
Io : 1.5 Amperes

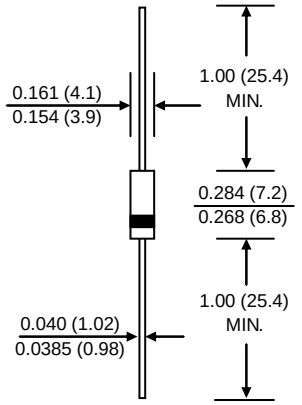
FEATURES :

* Glass passivated junction chip
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Super fast recovery time
* Pb / RoHS Free

MECHANICAL DATA :

* Case : D2A 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 : 0.645 gram

D2A



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C Lead temperature unless otherwise specified.

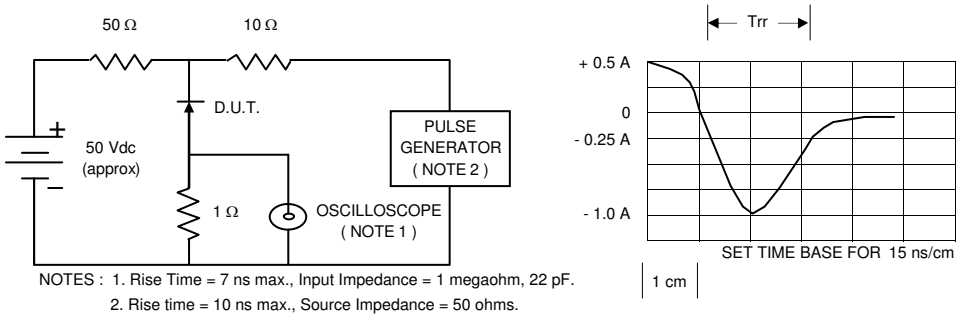
RATING	SYMBOL	VALUE	UNIT
Maximum Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS Voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Current 50 Hz sine wave, R-load , Ta = 25 ℃	$I_{F(AV)}$	1.5	A
Maximum Peak Forward Surge Current 8.3 ms. Non-repetitive 1 cycle peak value , T_J = 25 ℃	I_{FSM}	50	A
Maximum Peak Forward Voltage at I_F = 1.5 A , Pulse measurement	V_F	0.98	V
Maximum DC Reverse Current at V_{RRM} , Pulse measurement	I_R	10	μA
Maximum Reverse Recovery Time (Note 1)	Trr	35	ns
Maximum Thermal Resistance (Junction to lead)	$R_{\theta JL}$	12	℃/W
Maximum Thermal Resistance (Junction to ambient)	$R_{\theta JA}$	83	℃/W
Junction Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	- 40 to + 150	°C

Notes :

(1) Reverse Recovery Test Conditions I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

RATING AND CHARACTERISTIC CURVES (S2L20U)

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 FOR OUTPUT RECTIFIED CURRENT

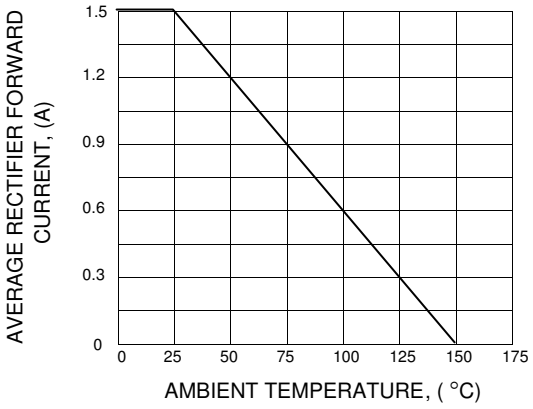


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

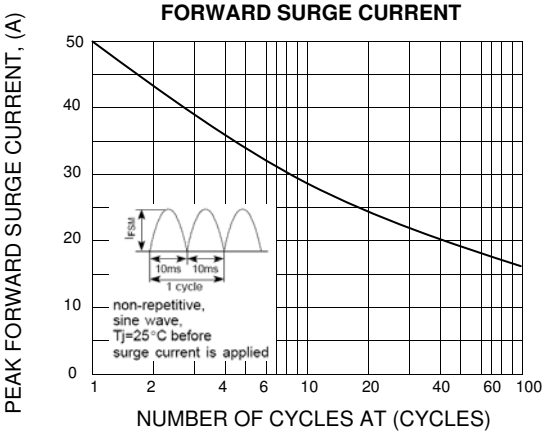


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

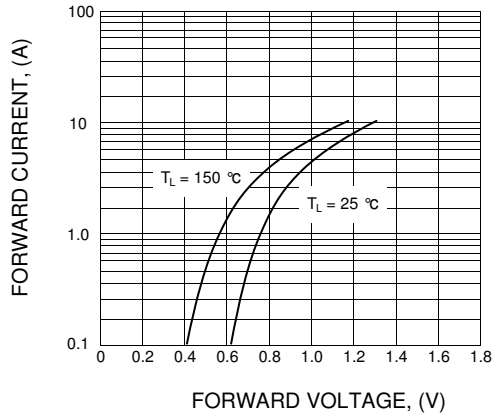


FIG.5 - POWER DISSIPATION