



S3L20U

PRV : 200 Volts
Io : 3 Amperes

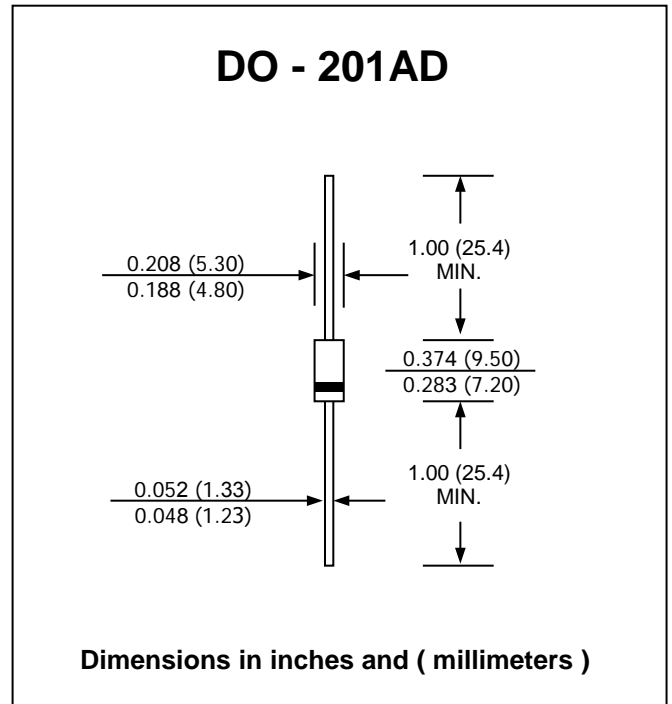
FEATURES :

- * 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 : DO-201AD 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 : 1.21 grams

SUPER FAST RECOVERY RECTIFIER DIODE



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 Reverse Voltage	V_{RM}	200	V
Maximum Average Forward Current $T_a = 128\text{ }^\circ\text{C}$	$I_{F(AV)}$	3.0	A
Maximum Peak One Cycle Surge Forward Current (50 Hz, Sine wave, Non-Repetitive)	I_{FSM}	60	A
Maximum Peak Forward Voltage at $I_F = 2.1\text{ A}$	V_F	0.98	V
Maximum Reverse Current at V_{RM}	I_{RM}	10	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35	ns
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	60	$^\circ\text{C/W}$
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	6.5	$^\circ\text{C/W}$
Junction Temperature Range	T_J	- 40 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 40 to + 150	$^\circ\text{C}$

Note:

(1) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$

RATING AND CHARACTERISTIC CURVES (S3L20U)

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

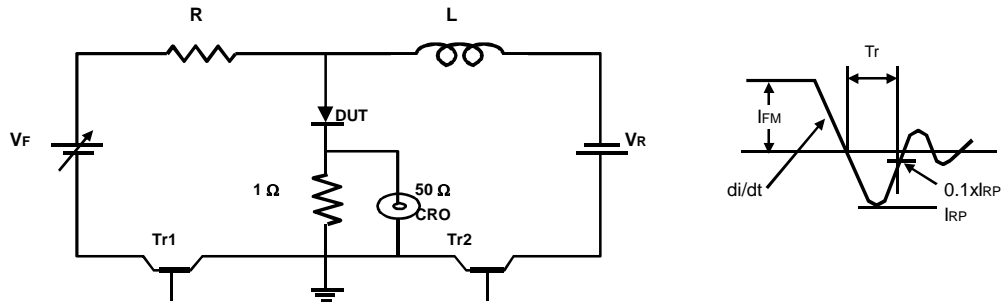


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

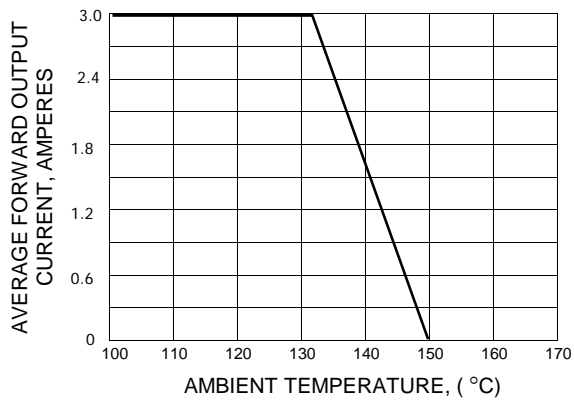


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

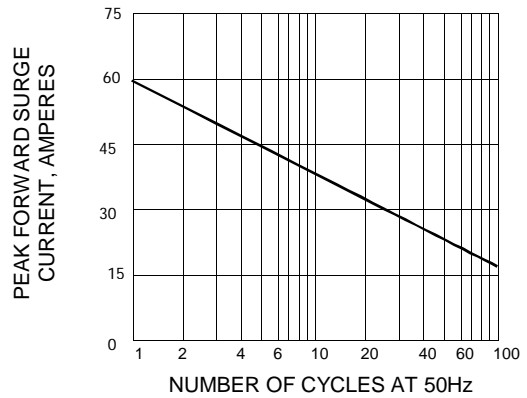


FIG.4 - INSTANTANEOUS FORWARD CHARACTERISTICS

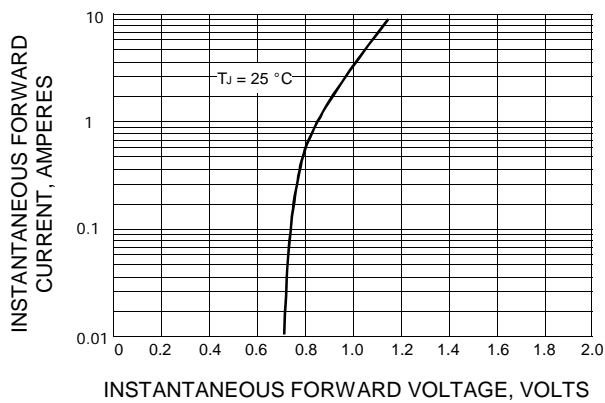


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

