

3TH41

FAST RECOVERY RECTIFIER

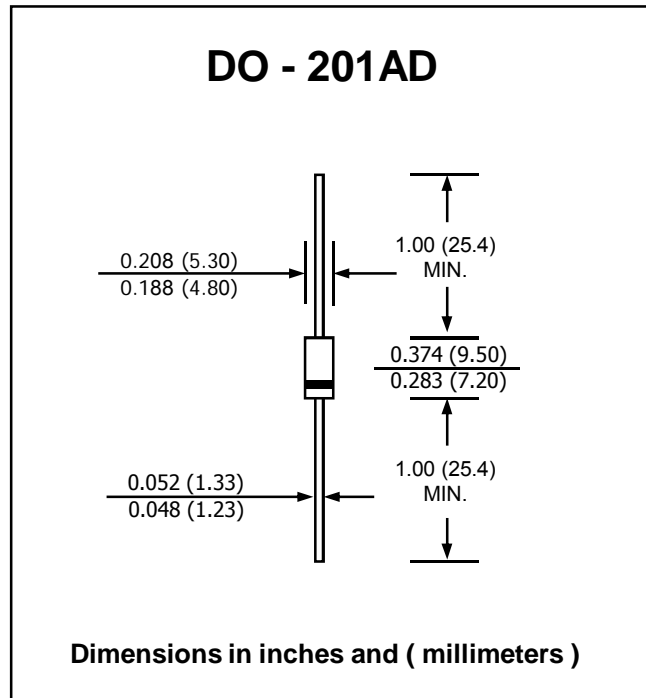
PRV : 1500 Volts
Io : 3.0 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency
- * 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



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 Repetitive Peak Reverse Voltage	V_{RRM}	1500	V
Maximum Average Forward Current	$I_{F(AV)}$	3.0	A
Maximum Peak One Cycle Surge Forward Current (Non-Repetitive)	I_{FSM}	50 (50Hz)	A
		55 (60Hz)	
Maximum Peak Forward Voltage at $I_F = 3 A$	V_F	1.3	V
Maximum Repetitive Peak Reverse Current at V_{RRM}	I_R	10	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	1.5	μs
Thermal Resistance - Junction to Ambient	$R_{\theta JA}$	38	$^{\circ}C/W$
Junction Temperature Range	T_J	- 40 to + 150	$^{\circ}C$
Storage Temperature Range	T_{STG}	- 40 to + 150	$^{\circ}C$

Note :

(1) Reverse Recovery Test Conditions : $I_F = 0.1A, I_R = 0.1A.$

RATING AND CHARACTERISTIC CURVES (3TH41)

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

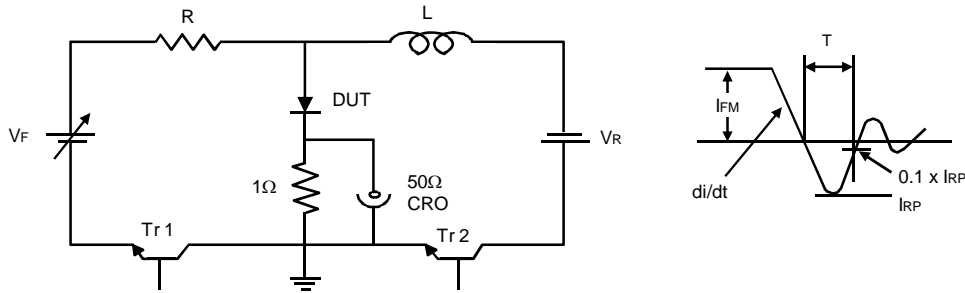


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

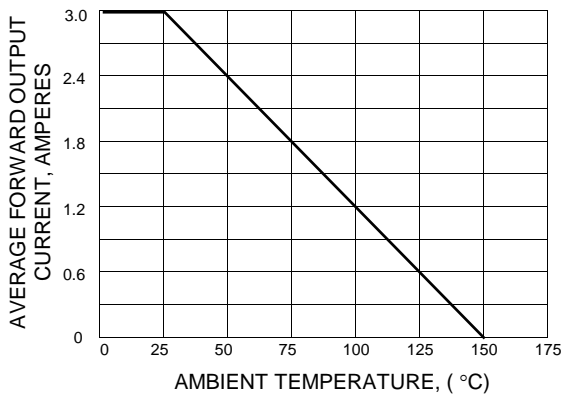


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

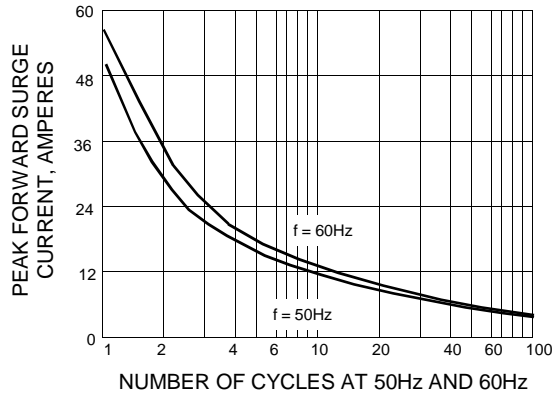


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

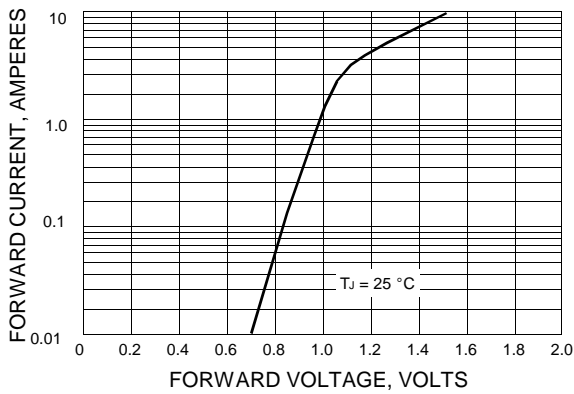


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

