



FR301 THRU FR307 FAST RECOVERY RECTIFIERS

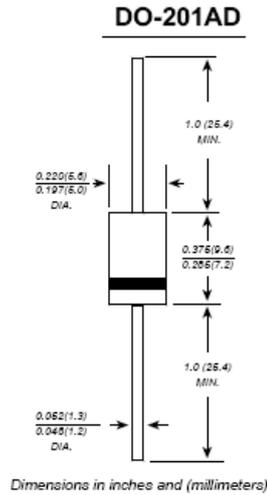
Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
- ◆ 250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- ◆ This is a Pb - Free Device
- ◆ All SMC parts are traceable to the wafer lot
- ◆ Additional testing can be offered upon request

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.04 ounce, 1.10 grams



MARKING DIAGRAM



Where XXXXX is YYWWL

FR301 = Part Name
 SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number

Cautions: Molding resin
 Epoxy resin UL:94V-0

ORDERING INFORMATION

Device	Package	Shipping
FR301-FR307	DO-201AD (Pb-Free)	1250pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

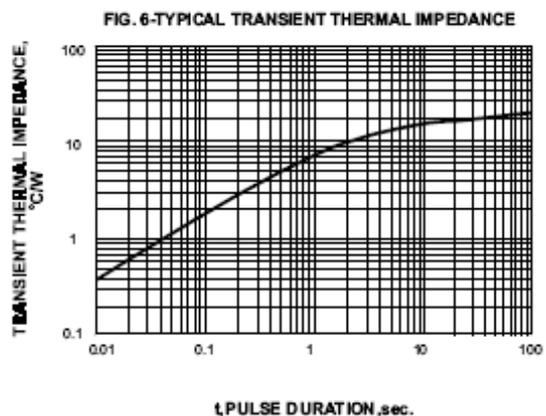
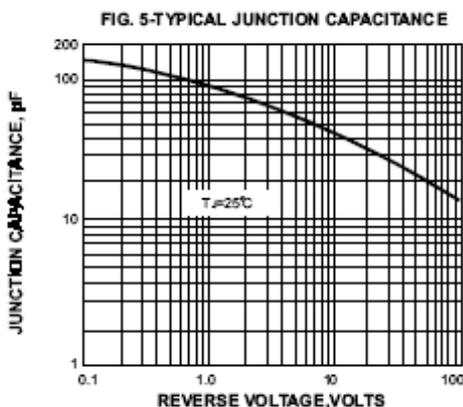
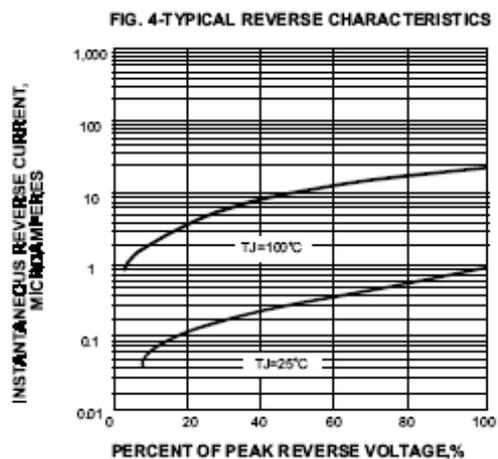
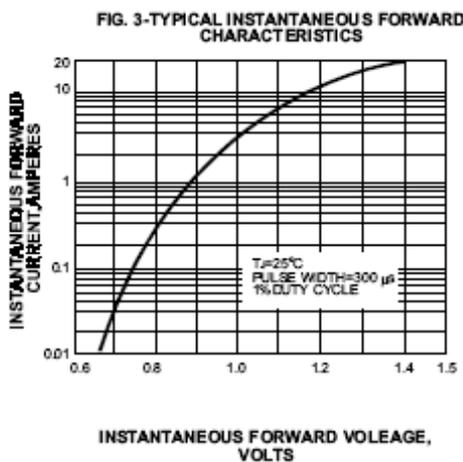
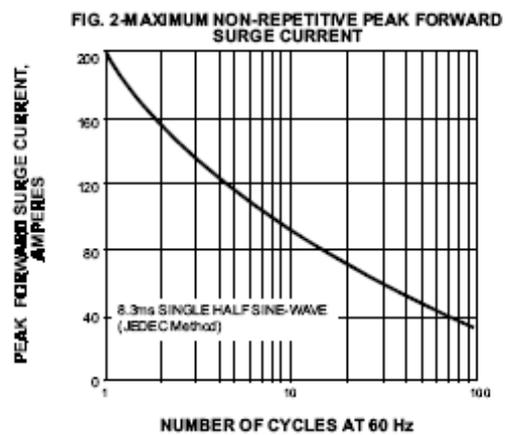
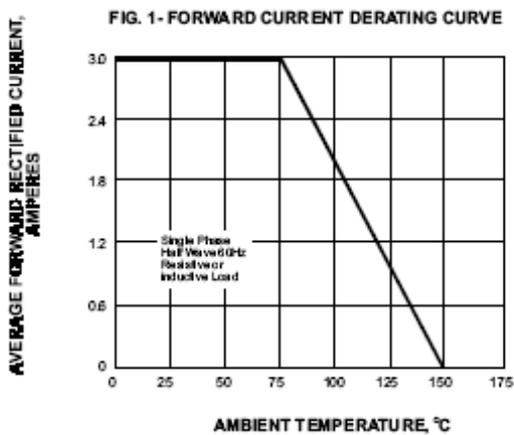
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	FR 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length at $T_A=75^\circ C$	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200.0							Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.3							Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	I_R	5.0 100.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500		ns
Typical junction capacitance (NOTE 2)	C_J	60.0							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	20.0							$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150							$^\circ C$

Note: 1.Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted



RATINGS AND CHARACTERISTIC CURVES FR301 THRU FR307



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