

FR301 THRU FR307 3.0AMP. Fast Recovery Rectifiers

VOLTAGE:50 TO 1000V

CURRENT:3.0A



Specification Features:

- Case: Epoxy, Molded
- Weight: 1.20Gram (Approximately)
- High current capability, Low leakage current
- High surge current capability
- Finish: All External Surfaces Corrosion Resistant And Terminal Leads Are Readily Solderable
- Lead And Mounting Surface Temperature For Soldering Purposed:
260°C Max. For 10 Seconds 1/16 Inch From Case
- RoHS Compliant
Cathode Indicated By Polarity Band

DEVICE MARKING DIAGRAM



FR30X : Device Name FR301- FR307
KEL : KEL Logo

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

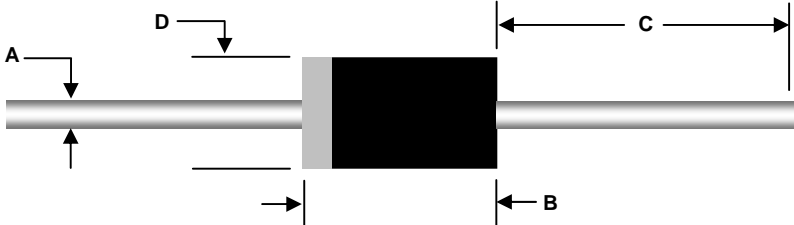
Parameter	Symbol	FR 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum DC Blocking Voltage	V_R	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectifier Current. (0.375" Lead Length @ $T_A=75^\circ\text{C}$)	$I_{F(AV)}$	3.0							A
Non-repetitive Peak Forward Surge Current. (8.3mS Single Half Sine-wave)	I_{FSM}	150							A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$
Thermal Resistance (Junction to Ambient) (Note 1)	$R_{\theta JA}$	20							$^\circ\text{C/W}$

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	FR 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307	Units
Reverse Current @ V_R	I_R	5							μA
Forward Voltage @3A	V_F	1.3							V
Maximum Reverse Recovery Time (Note 2)	T_{RR}	150			250		500		nS
Total Capacitance @ $V_R=4\text{V}, f=1\text{MHz}$	C_T	50							pF

NOTE: (1) Thermal resistance from junction to ambient at 0.375" lead length, vertical P.C. board mounted
(2) Reverse Recovery Test Conditions: $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$

Package Outline

Package	Case Outline				
DO-201AD					
	DO-201AD				
	DIM	Millimeters		Inches	
		Min	Max	Min	Max
	A	1.18	1.30	0.046	0.052
	B	7.20	9.60	0.285	0.375
C	25.40	---	1.000	---	
D	4.80	5.30	0.190	0.210	



NOTICE

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.takcheong.com>, or consult your nearest Tak Cheong's sales office for further assistance.