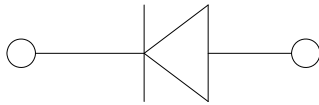
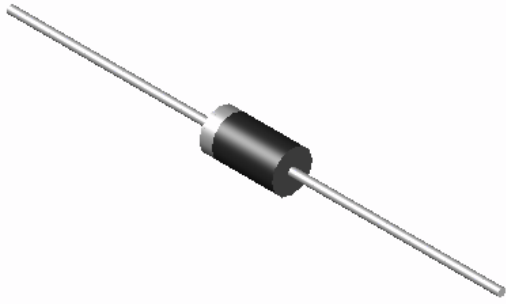




## Fast Recovery Rectifier



### Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Mechanical Data

- Package:** DO-201AD(DO-27)
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity:** Color band denotes cathode end

### Maximum Ratings (Ta=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR501G	FR502G	FR503G	FR504G	FR505G	FR506G	FR507G	
Device marking code			FR501G	FR502G	FR503G	FR504G	FR505G	FR506G	FR507G	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	V	50	100	200	400	600	800	1000	
Maximum RMS Voltage	$V_{RMS}$	V	35	70	140	280	420	560	700	
Maximum DC blocking Voltage	$V_{DC}$	V	50	100	200	400	600	800	1000	
Average Forward Current @60Hz sine wave, Resistance load, Ta=50	$I_{F(AV)}$	A	5.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25	$I_{FSM}$	A	200							
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25			400							
Current squared time @1ms t8.3 ms Tj=25 Rating of per diode	$I^2t$	A <sup>2</sup> s	166							
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	$C_j$	pF	70				56			
Storage Temperature	$T_{stg}$		-55 ~ +150							
Junction Temperature	$T_j$		-55 ~ +150							

Maximum reverse recovery time	$t_{rr}$	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	150	250	500
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# FR501G THRU FR507G

**Thermal Characteristics**  $T_a=25$  Unless otherwise specified

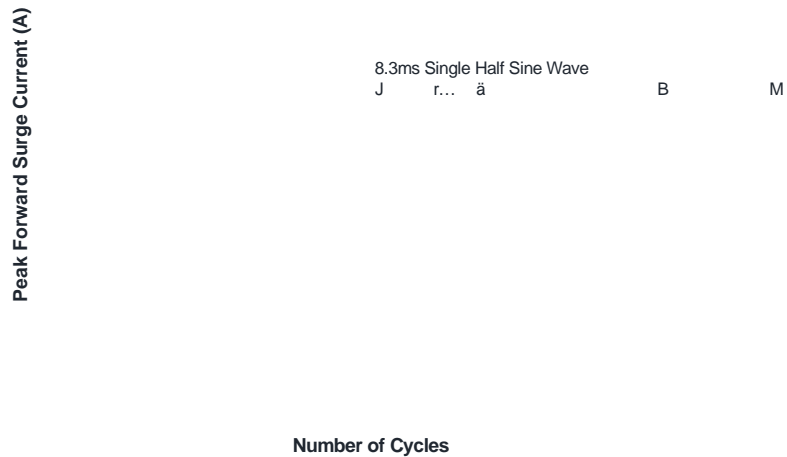
PARAMETER	SYMBOL	UNIT	FR501G	FR502G	FR503G	FR504G	FR505G	FR506G	FR507G
Typical Thermal Resistance	$R_{JA}$	/W	18						

**Ordering Information (Example)**

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FR501G~FR507G	D1	Approximate 1.05	1250	1250	12500	Tape
FR501G~FR507G	C1	Approximate 1.05	250	250	12500	Bulk

**Characteristics (Typical)**

FIG.2: Forward Surge Current Capability





**Outline Dimensions**

<b>DO-201AD(DO-27)</b>		
Dim	Min	Max
A	8.50	9.50
B	5.00	5.60
C	25.4	/
D	1.20	1.30

# FR501G THRU FR507G

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