



3.0A Fast Recovery Rectifier

Features

1. High current capability
2. Low reverse leakage current
3. Low forward voltage drop
4. Fast switching speed for high efficiency



Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage = Working peak reverse voltage = DC blocking voltage		FR301	V_{RRM}	50	V
		FR302	$=V_{RWM}$	100	V
		FR303	$=V_R$	200	V
		FR304		400	V
		FR305		600	V
		FR306		800	V
		FR307		1000	V
Peak forward surge current			I_{FSM}	150	A
Average forward current	$T_A=75^{\circ}\text{C}$		I_{FAV}	3.0	A
Storage temperature range			T_{stg}	-65~+175	$^{\circ}\text{C}$

Electrical Characteristics

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=3.0\text{A}$		V_F			1.3	V
Reverse current	$T_A=25^{\circ}\text{C}$		I_R			10	μA
	$T_A=55^{\circ}\text{C}$		I_R			150	μA
Maximum reverse recovery time	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	FR301~FR304	T_{rr}			150	ns
		FR305	T_{rr}			250	ns
		FR306~FR307	T_{rr}			500	ns
Diode capacitance	$V_R=4\text{V}, f=1\text{MHz}$		C_D		65	pF	

Excel Semiconductor



Characteristics ($T_j=25^{\circ}\text{C}$ unless otherwise specified)

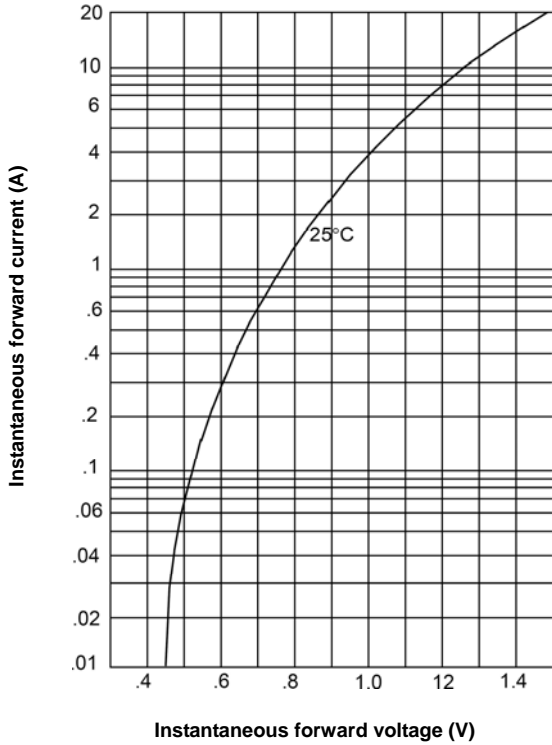


Figure 1. Typical forward characteristics

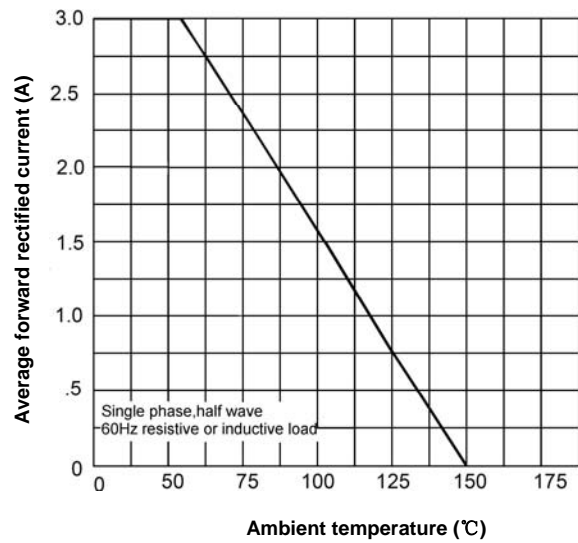


Figure 2. Forward derating curve

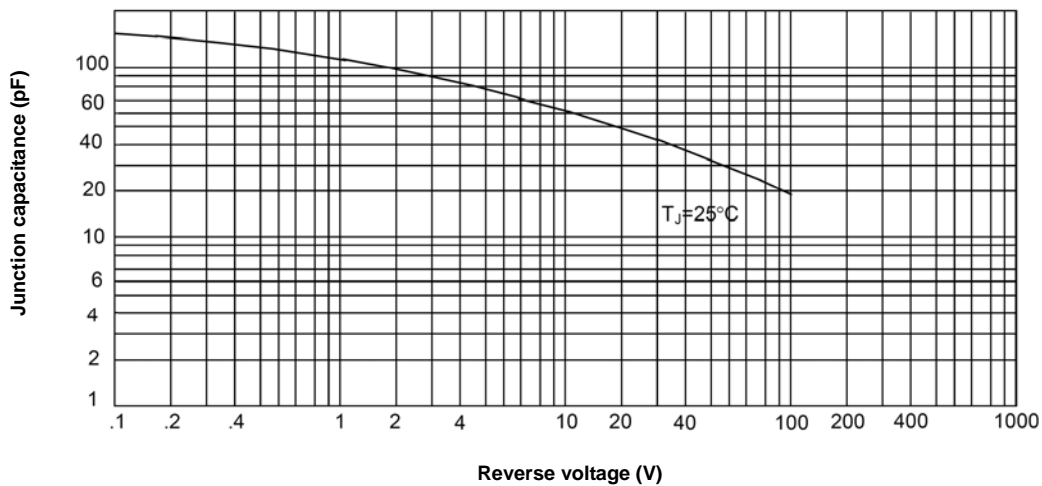
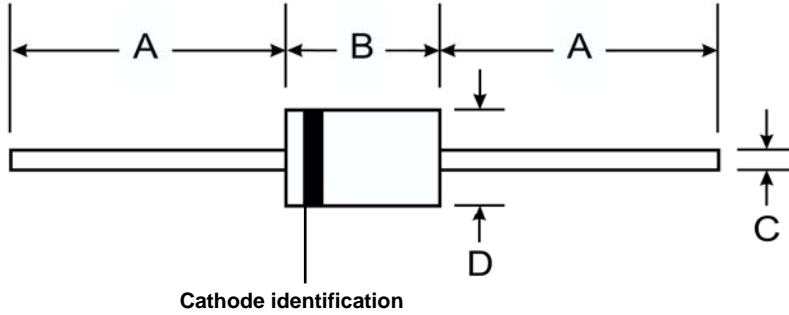


Figure 3. Junction capacitance



Dimensions in mm



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	1.000	---	25.40	---
B	0.280	0.370	7.20	9.50
C	0.048	0.052	1.20	1.30
D	0.188	0.250	4.80	6.40

Case: molded plastic DO-201AD

Polarity: cathode band

Marking: type number

Marking

