

Silicon Fast Recovery Diode

V_{RRM} = 50 V - 600 V
I_F = 30 A

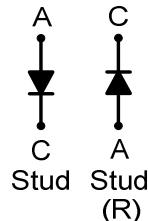
Features

- High Surge Capability
- Types up to 600 V V_{RRM}

DO-5 Package

Note:

1. Standard polarity: Stud is cathode.
2. Reverse polarity (R): Stud is anode.
3. Stud is base.



Maximum ratings, at T_j = 25 °C, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	FR30A(R)02	FR30B(R)02	FR30D(R)02	FR30G(R)02	FR30J(R)02	Unit
Repetitive peak reverse voltage	V _{RRM}		50	100	200	400	600	V
RMS reverse voltage	V _{RMS}		35	70	140	280	420	V
DC blocking voltage	V _{DC}		50	100	200	400	600	V
Continuous forward current	I _F	T _C ≤ 100 °C	30	30	30	30	30	A
Surge non-repetitive forward current, Half Sine Wave	I _{F,SM}	T _C = 25 °C, t _p = 8.3 ms	300	300	300	300	300	A
Operating temperature	T _j		-40 to 125	°C				
Storage temperature	T _{stg}		-40 to 150	°C				

Electrical characteristics, at T_j = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	FR30A(R)02	FR30B(R)02	FR30D(R)02	FR30G(R)02	FR30J(R)02	Unit
Diode forward voltage	V _F	I _F = 30 A, T _j = 25 °C	1.4	1.4	1.4	1.4	1.4	V
Reverse current	I _R	V _R = 50 V, T _j = 25 °C	25	25	25	25	25	μA
Recovery Time								
Maximum reverse recovery time	T _{RR}	I _F =0.5 A, I _R =1.0 A, I _{RR} = 0.25 A	200	200	200	200	250	nS
Thermal characteristics								
Thermal resistance, junction - case	R _{thJC}		0.46	0.46	0.46	0.46	0.46	°C/W

