



JEFR0408G2

EPI FAST SOFT RECOVERY RECTIFIER

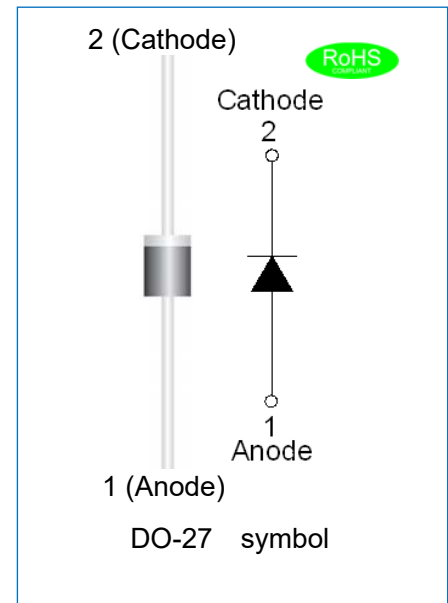
Rev.1.5

DESCRIPTION

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ Lead free in comply with EU RoHS 2011/65/EU directives
- ✧ Low reverse leakage current
- ✧ Fast recovery time and soft recovery characteristics
- ✧ Low recovery loss
- ✧ Applications for use in switching power supplies, inverters and as free wheeling diodes

MECHANICAL DATA

- ✧ Case: DO-27 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end



ABSOLUTE MAXIMUM RATING (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	JEFR0408G2	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	800	V
Maximum DC blocking voltage	V_{DC}	800	V
Average forward current at $T_A=35^\circ\text{C}$	$I_{F(AV)}$	4	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125	A
Junction temperature and storage temperature range	T_j, T_{stg}	-55 to +150	°C

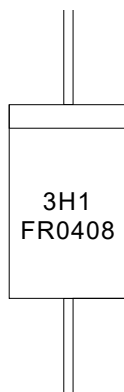
ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F=3A, T_j=150^\circ\text{C}$	V_F	-	-	1.53	V
	$I_F=3A, T_j=25^\circ\text{C}$		-	-	1.75	
	$I_F=4A, T_j=25^\circ\text{C}$		-	-	1.85	
Reverse current	$V_R=800V, T_j=25^\circ\text{C}$	I_R	-	-	5	μA
	$V_R=800V, T_j=150^\circ\text{C}$		-	-	200	
Reverse recovery time	$I_F=0.5A, I_R=1A, I_{REC}=0.25A$	t_{rr}	-	-	75	ns
	$I_F=1A, di/dt=50A/\mu\text{s}$		-	-	100	

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-a)}$	Thermal resistance from junction to ambient free air	-	38	-	$^{\circ}\text{C/W}$

MARKING



FR	Fast Recovery Rectifier
04	$I_{F(AV)}=4\text{A}$
08	$V_{RRM}=800\text{V}$

\underline{x} H1: Month, 1/2/3~9/A/B/C

3 \underline{x} 1:

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

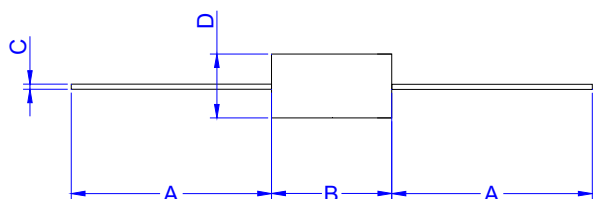
3H \underline{x} : Batch number

ORDERING INFORMATION

JieJie Microelectronics	J	E	F	R	04	08	G2	Package:DO-27
		Epi	Fast	Rectifier	$I_{F(AV)}=4\text{A}$	$V_{RRM}=800\text{V}$		

PACKAGE MECHANICAL DATA

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	24.00	-	0.945	-
B	8.50	9.50	0.335	0.375
C	1.15	1.45	0.045	0.057
D	4.90	5.50	0.193	0.217



DO-27

PACKAGE INFORMATION-DO-27

OUTLINE	UNIT WEIGHT (g/PCS) TYP	INNER BOX (PCS)	PER CARTON (PCS)
Bulk	1.142	1,000	10,000

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

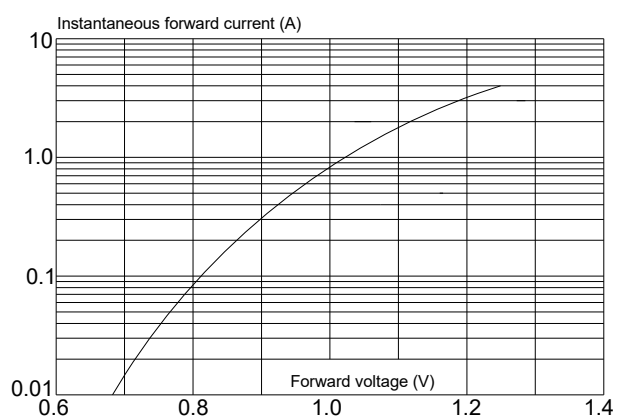


FIG.2: Typical reverse characteristics

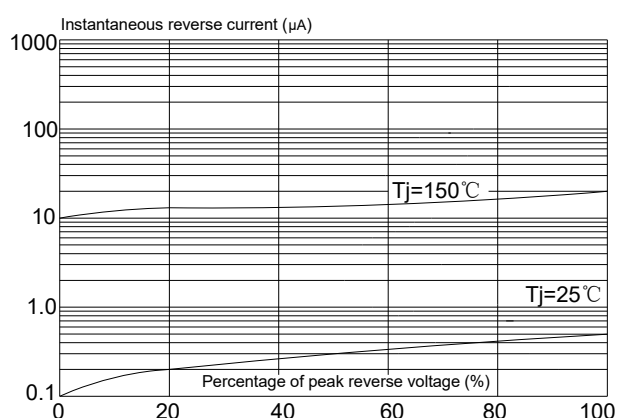


FIG.3: Maximum non-repetitive peak forward surge current

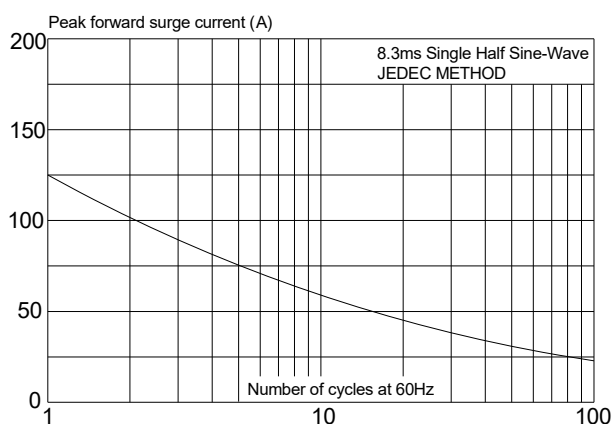


FIG.4: Forward current derating curve

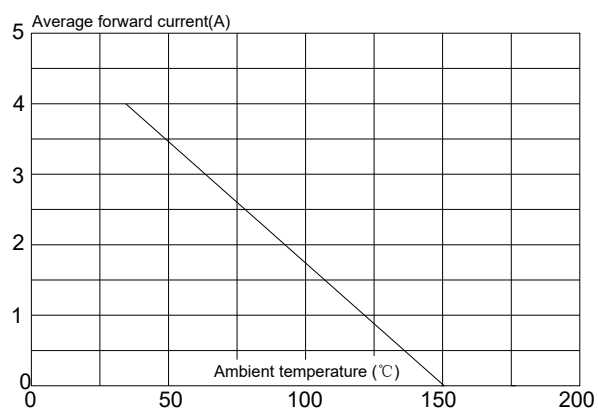


FIG.5: Power dissipation

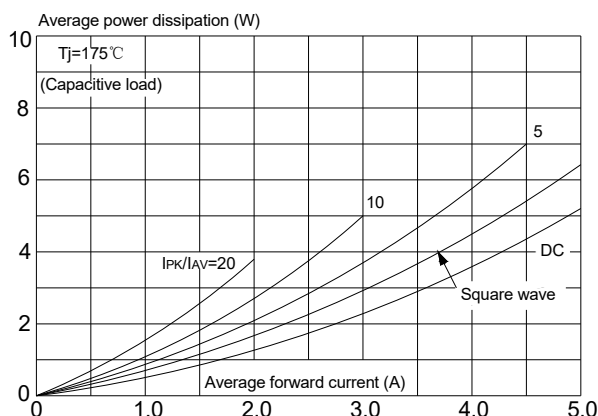
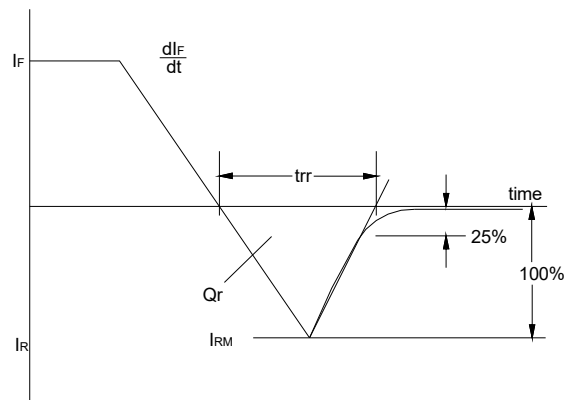


FIG.6: Reverse recovery definitions



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