



JECR0102FL EPI HYPERFAST SOFT RECOVERY RECTIFIER

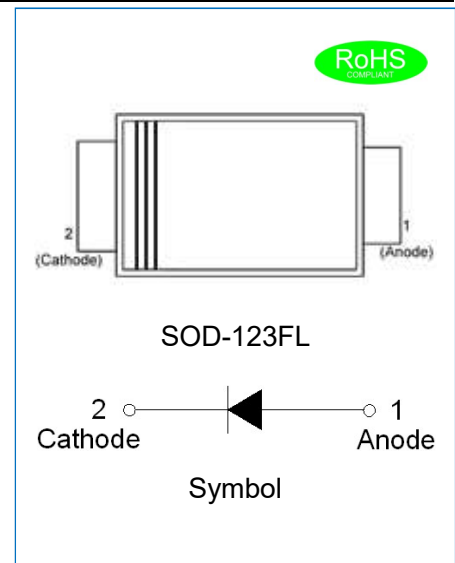
Rev.1.4

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
- ✧ Hyperfast recovery time and soft recovery characteristics
- ✧ Low recovery loss

MECHANICAL DATA

- ✧ Case: SOD-123FL molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.0144 gram



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

Parameter	Symbol	JECR0102FL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Average forward current at $T_A=85^\circ\text{C}$	$I_{F(AV)}$	1	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	35	A
Operating junction 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	$I_F=1A, T_J=25^\circ C$	V_F	-	-	0.95	V
	$I_F=1A, T_J=125^\circ C$		-	-	0.8	
DC reverse current at rated DC blocking voltage	$T_J=25^\circ C$	I_R	-	0.02	1	μA
	$T_J=125^\circ C$		-	1.5	20	
Reverse recovery time	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$	t_{rr}	-	-	25	ns
	$I_F=1A, dl_F/dt=50A/\mu s, V_R=30V, T_J=25^\circ C$		-	23	-	
	$I_F=1A, dl_F/dt=100A/\mu s, V_R=30V, T_J=25^\circ C$		-	20	-	
Peak reverse recovery current	$I_F=1A, dl_F/dt=100A/\mu s, V_R=30V, T_J=25^\circ C$	I_{RM}	-	1.7	-	A
Reverse recovery charge	$I_F=1A, dl_F/dt=100A/\mu s, V_R=30V, T_J=25^\circ C$	Q_{RR}	-	17	-	nC

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-a)}$	Junction to ambient (note1)	-	-	170	$^\circ C/W$

Note1: Thermal resistance from junction to ambient mounted on P.C.B. with 8.0 mm x 8.0 mm copper pad areas.

MARKING



CR	Hyperfast Recovery Rectifier
01	$I_{F(AV)}=1A$
02	$V_{RRM}:200V$

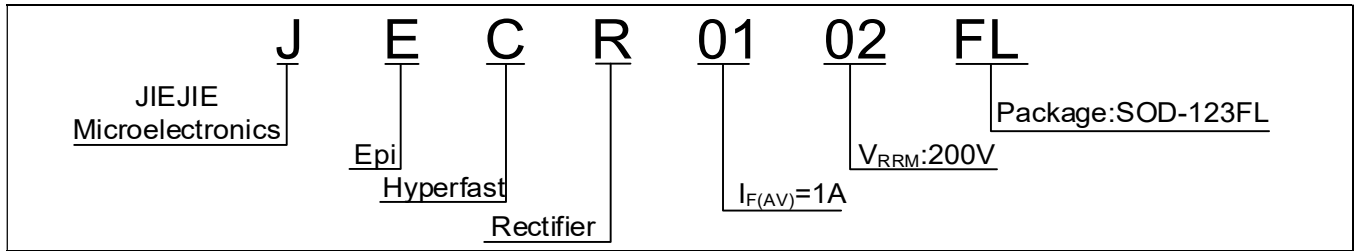
$\underline{x}H1$: Month, 1/2/3~9/A/B/C

$3\underline{x}1$:

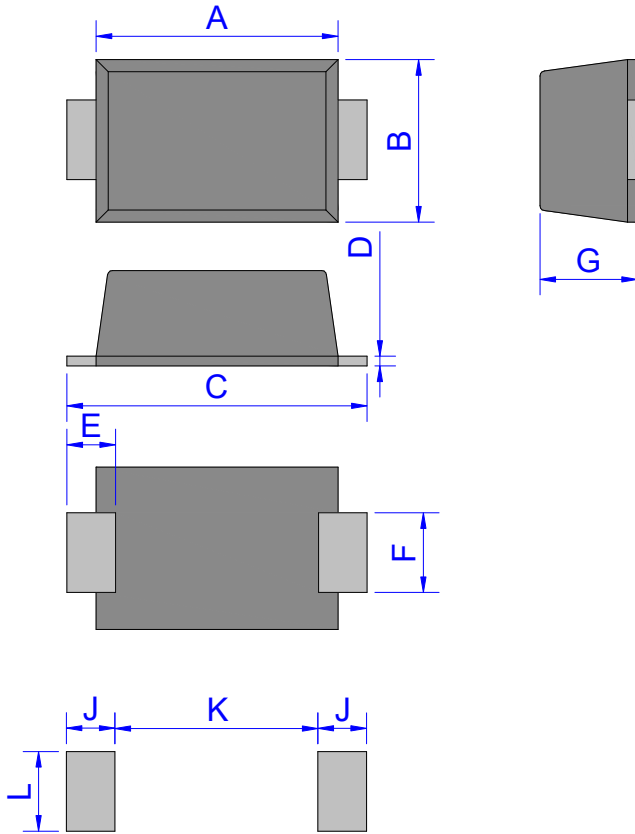
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

$3H\underline{x}$: Batch number

ORDERING INFORMATION



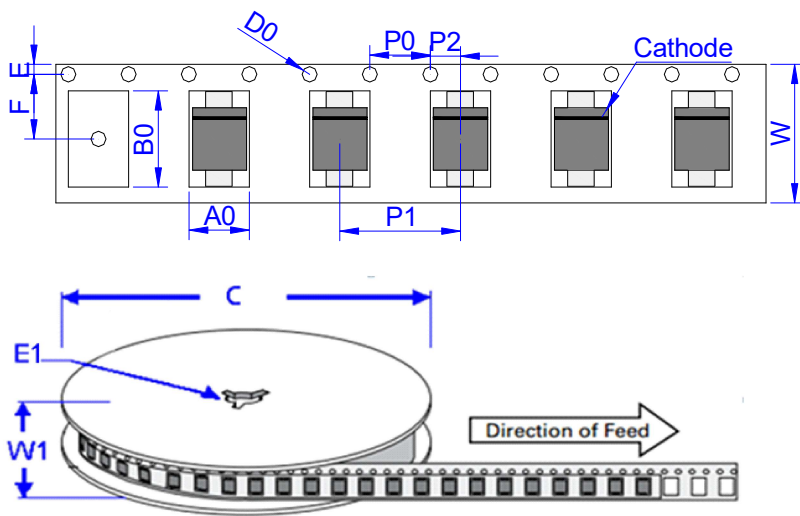
PACKAGE MECHANICAL DATA



SOD-123FL

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.60	3.00	0.102	0.118
B	1.60	2.00	0.063	0.079
C	3.45	3.95	0.136	0.156
D	0.10	0.25	0.004	0.01
E	0.3	0.9	0.012	0.035
F	0.80	1.20	0.031	0.047
G	0.70	1.00	0.028	0.039
J	1.30		0.051	
K		1.70		0.067
L	1.30		0.051	

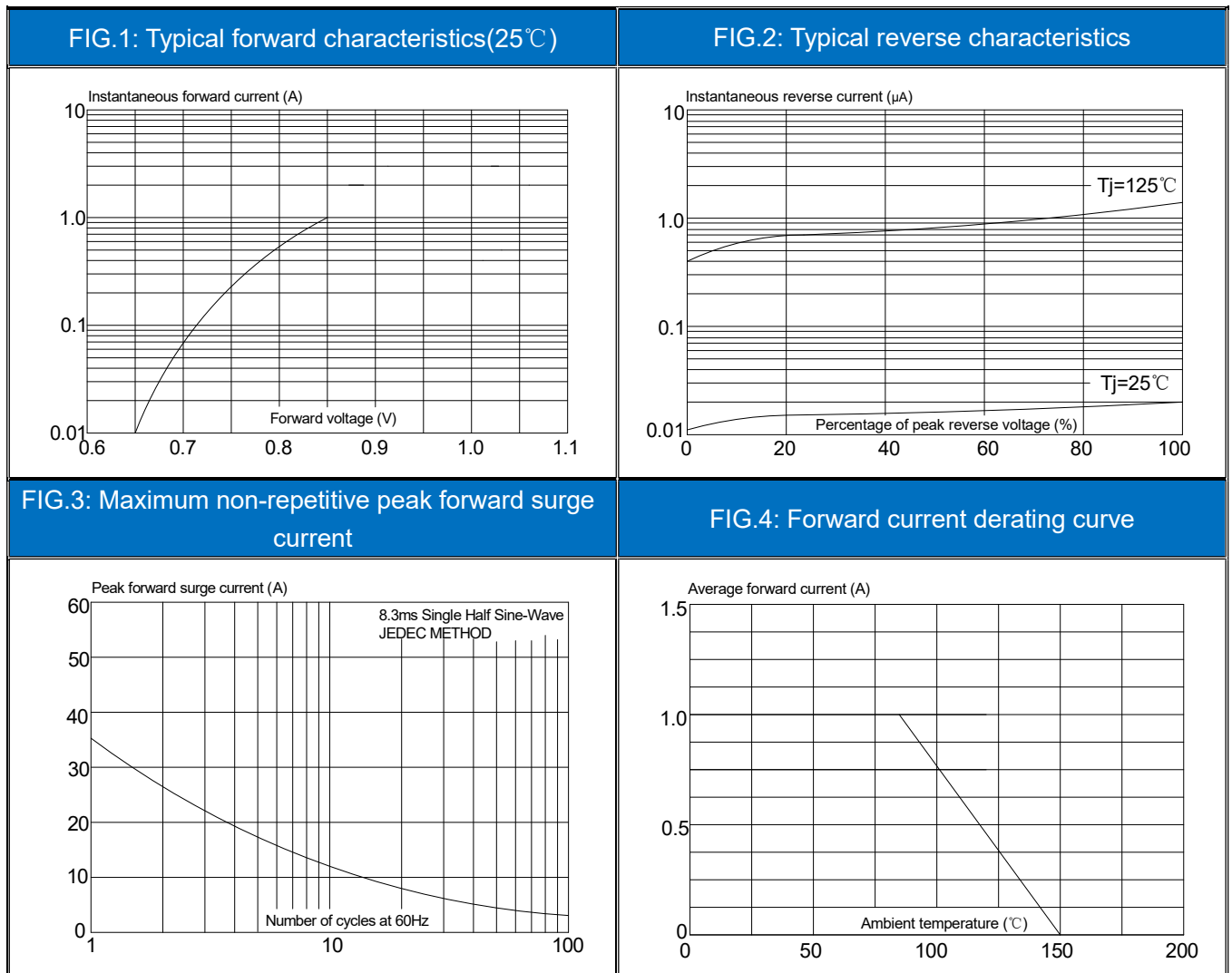
TAPE AND REEL SPECIFICATION-SOD-123FL



Ref.	Dimensions	
	Millimeters	Inches
A0	1.95 ± 0.3	0.077 ± 0.012
B0	3.95 ± 0.3	0.156 ± 0.012
C	178	7.0
D0	1.55 ± 0.1	0.061 ± 0.004
E	1.75 ± 0.2	0.069 ± 0.008
E1	13.3 ± 0.3	0.524 ± 0.012
F	3.50 ± 0.2	0.138 ± 0.008
P0	4.00 ± 0.2	0.157 ± 0.008
P1	4.00 ± 0.2	0.157 ± 0.008
P2	2.00 ± 0.2	0.079 ± 0.008
W	8.0 ± 0.2	0.315 ± 0.008
W1	11.5 ± 1.0	0.453 ± 0.039

OUTLINE	UNIT WEIGHT (g/PCS) TYP	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.0144	3,000	150,000	178

CHARACTERISTICS CURVE




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