



JECR0302SC

EPI HYPERFAST SOFT RECOVERY RECTIFIER

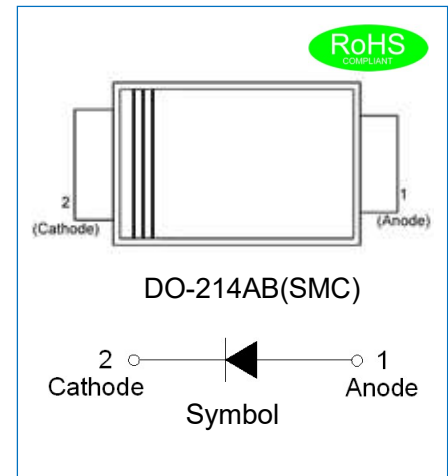
Rev.1.2

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: JEDEC DO-214AB molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 0.26gram



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

Parameter	Symbol	JECR0302SC	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 $T_L=140^{\circ}\text{C}$	$I_{F(AV)}$	3	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100	A
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150	$^{\circ}\text{C}$

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

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage at $I_F=3\text{A}$	$T_j=25^{\circ}\text{C}$	V_F	-	-	0.875	V
	$T_j=150^{\circ}\text{C}$		-	-	0.8	
DC reverse current at rated DC blocking voltage	$T_j=25^{\circ}\text{C}$	I_R	-	-	5	μA
	$T_j=150^{\circ}\text{C}$		-	-	200	
Reverse recovery time	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$	t_{rr}	-	-	25	ns
	$I_F=1\text{A}, di/dt=50\text{A}/\mu\text{s}$		-	-	35	

THERMAL RESISTANCES

Symbol	Parameter	JECR0302SC	Unit
$R_{th(j-l)}$	Junction to lead	11	$^{\circ}\text{C/W}$

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

MARKING



CR	Hyperfast Recovery Rectifier
03	$I_{F(AV)}=3A$
02	$V_{RRM}=200V$

xH1: Month, 1/2/3~9/A/B/C

3x1:

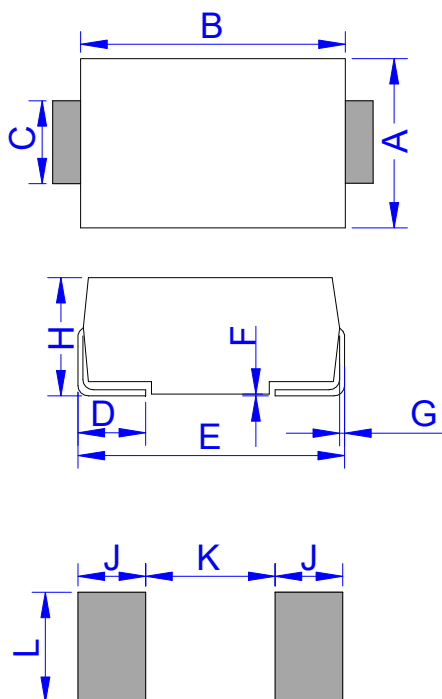
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

ORDERING INFORMATION

	<u>J</u>	<u>E</u>	<u>C</u>	<u>R</u>	<u>03</u>	<u>02</u>	<u>SC</u>
JIEJIE Microelectronics		Epi			$I_{F(AV)}=3A$	$V_{RRM}=200V$	Package:SMC
		Hyperfast					
			Rectifier				

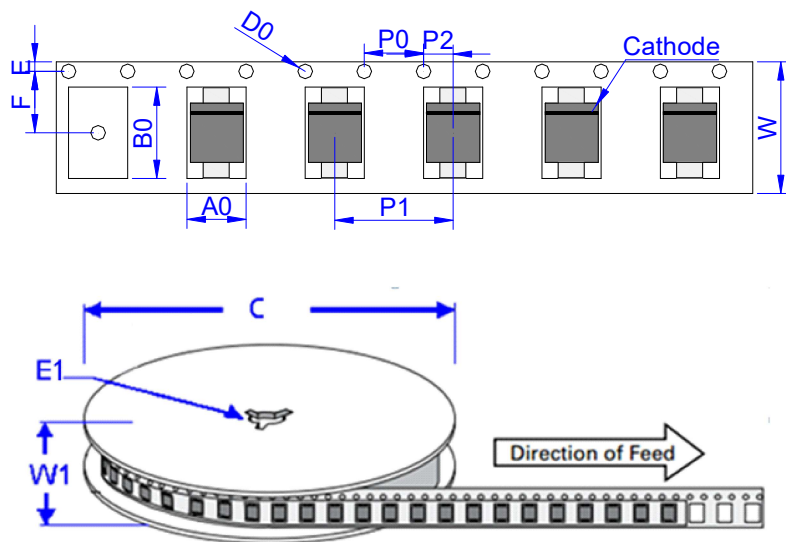
PACKAGE MECHANICAL DATA



DO-214AB (SMC)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.75	6.25	0.226	0.246
B	6.90	7.40	0.272	0.291
C	2.75	3.25	0.108	0.128
D	0.95	1.52	0.037	0.060
E	7.70	8.20	0.303	0.323
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

TAPE AND REEL SPECIFICATION-SMC



Ref.	Dimensions	
	Millimeters	Inches
A0	6.05 ± 0.3	0.238 ± 0.012
B0	8.31 ± 0.3	0.327 ± 0.012
C	330.0	13.0
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	7.50 ± 0.2	0.295 ± 0.008
P0	4.00 ± 0.2	0.157 ± 0.008
P1	8.00 ± 0.2	0.3145 ± 0.008
P2	2.00 ± 0.2	0.079 ± 0.008
W	16.0 ± 0.2	0.630 ± 0.008
W1	19.7 ± 2.0	0.776 ± 0.079

OUTLINE	UNIT WEIGHT (g/PCS) TYP	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.26	3,000	48,000	330

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

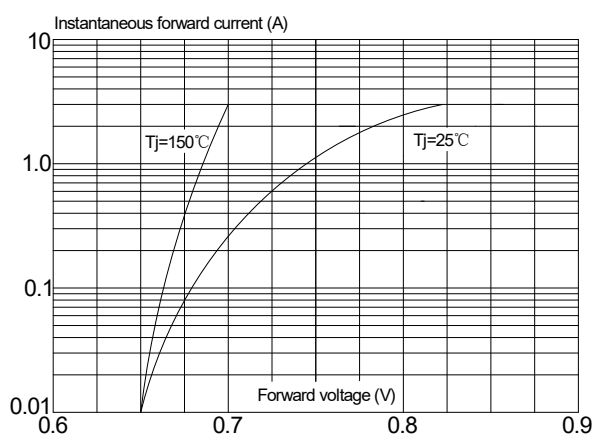


FIG.2: Typical reverse characteristics

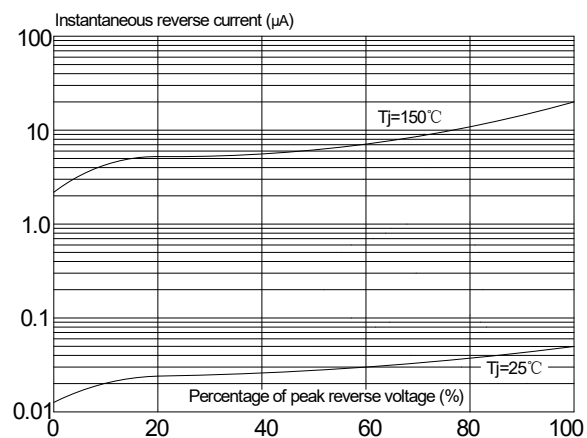


FIG.3: Maximum non-repetitive peak forward surge current

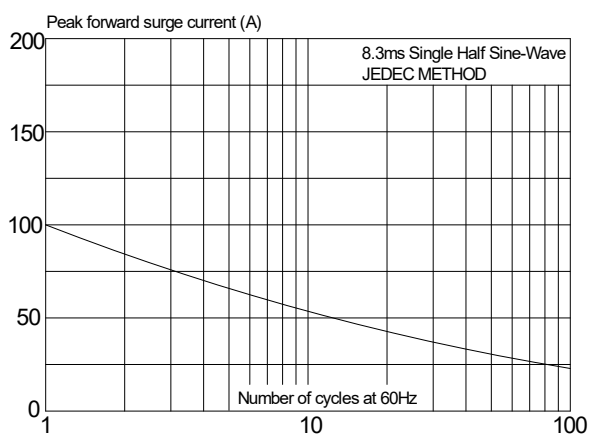
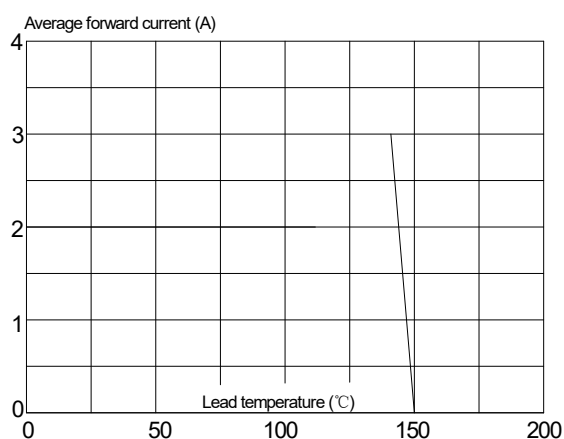


FIG.4: Forward current derating curve



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