

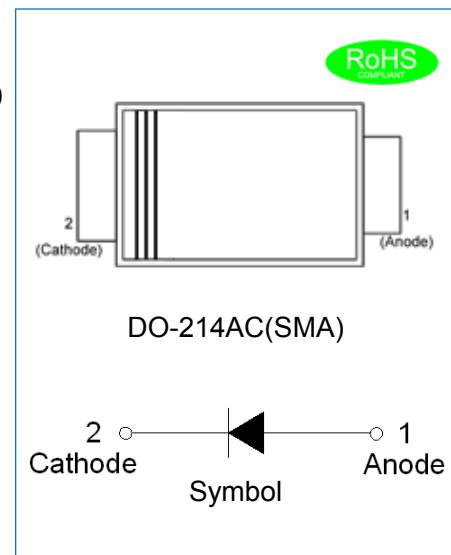
ES2AA~ES2DA

SUPER FAST RECOVERY RECTIFIER

Rev.2.5

DESCRIPTION:

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ For surface mounted applications in order to optimize board space
- ✧ Glass passivated chip junction
- ✧ Lead free in comply with EU RoHS 2011/65/EU directives
- ✧ Super fast recovery time



MECHANICAL DATA

- ✧ Case: JEDEC DO-214AC molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.06599 gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	ES2AA	ES2BA	ES2DA	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	V
Maximum RMS voltage	V_{RMS}	35	70	140	V
Maximum DC blocking voltage	V_{DC}	50	100	200	V
Maximum average forward current at $T_L=110^\circ\text{C}$	$I_{F(AV)}$	2.0			A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50			A
Maximum forward voltage @ $I_F=2.0\text{A}$	V_F	0.95			V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	I_R	5.0		
	$T_j=150^\circ\text{C}$		300		
Typical junction capacitance $V_R=4.0\text{V}, f=1\text{MHz}$	C_J	30			pF
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150			°C
Maximum reverse recovery time $I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$	t_{rr}	35			ns

THERMAL RESISTANCES

Symbol	Parameter	ES2AA	ES2BA	ES2DA	Unit
R _{th(j-L)}	Junction to lead(note1)			25	°C/W

Note1: Thermal resistance from junction to lead mounted on P.C.B. with 4.0 mm x 4.0 mm copper pad areas.

MARKING



E	Super Fast Recovery Rectifier
S	Surface Mount
2	I _{F(AV)} =2.0A
D	V _{RRM} :200V

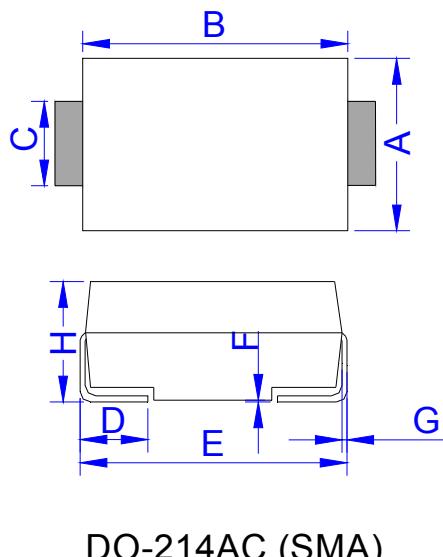
xH1: Month, 1、2、3 ~ 9、A、B、C

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	...

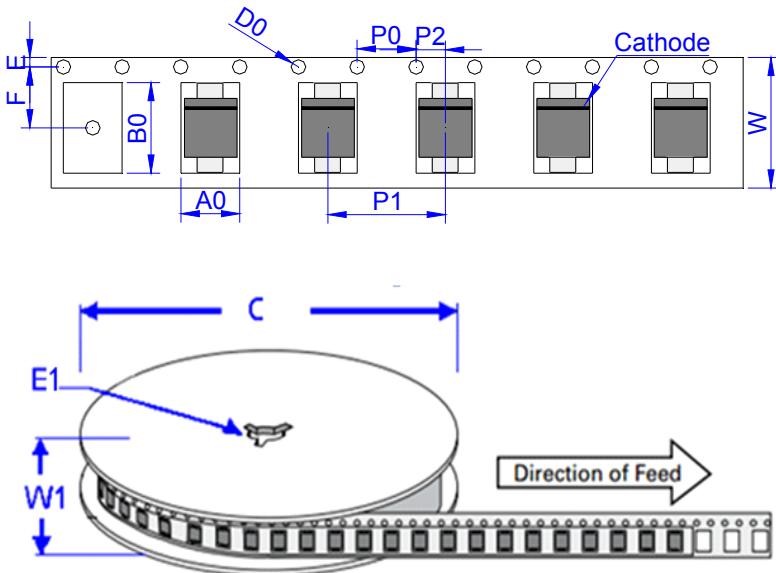
3Hx: Batch number

PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.18	2.90	0.086	0.114
B	3.99	4.57	0.157	0.180
C	1.10	2.21	0.043	0.087
D	0.76	1.52	0.030	0.060
E	4.70	5.69	0.185	0.224
F		0.203		0.008
G	0.152	0.305	0.006	0.012
H	1.70	2.45	0.067	0.096

TAPE AND REEL SPECIFICATION-SMA



Ref.	Dimensions	
	Millimeters	Inches
A0	2.79 ± 0.3	0.110 ± 0.012
B0	5.33 ± 0.3	0.210 ± 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	5.5 ± 0.2	0.217 ± 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	12.0 ± 0.2	0.472 ± 0.008
W1	15.7 ± 2.0	0.618 ± 0.079

OUTLINE	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.06599	7,500	120,000	330

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics (25°C)

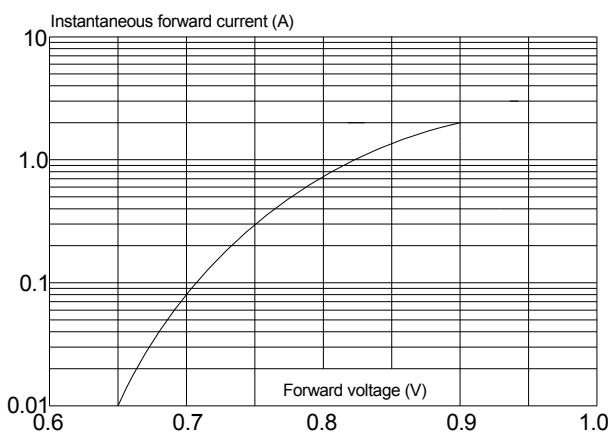


FIG.2: Typical reverse characteristics

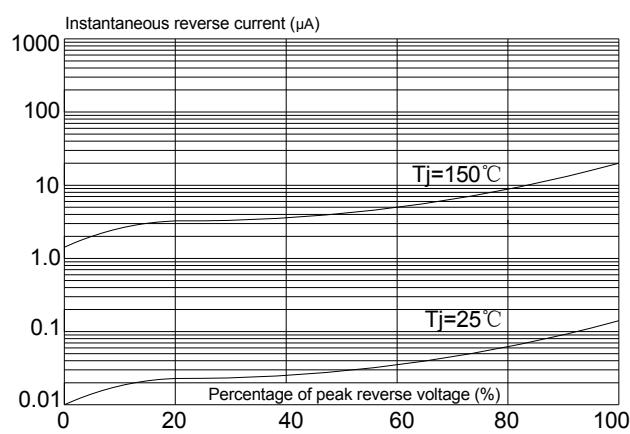


FIG.3: Maximum non-repetitive peak forward surge current

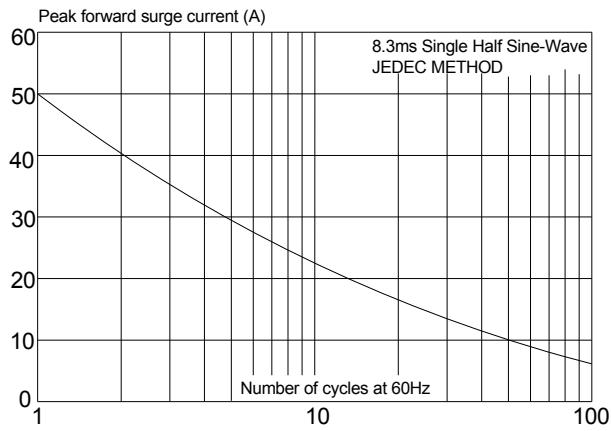
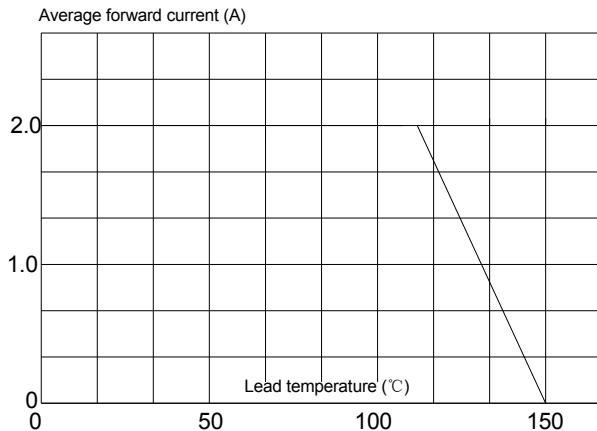


FIG.4: Forward current derating curve



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