



## LF0506~LF0508

### LOW FORWARD VOLTAGE RECTIFIER

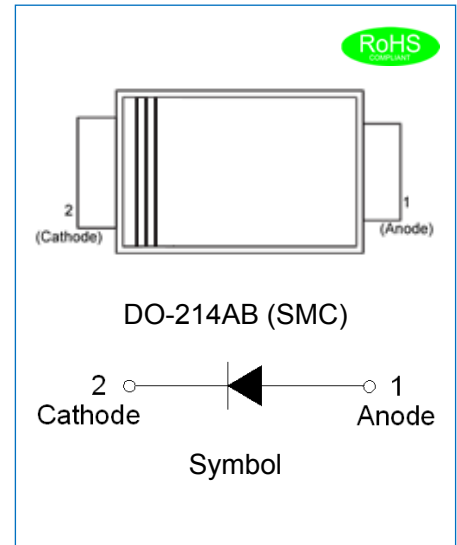
Rev.2.4

#### DESCRIPTION:

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Glass passivated junction
- ✧ For surface mounted applications in order to optimize board space
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directives
- ✧ Low forward voltage

#### MECHANICAL DATA

- ✧ Case: JEDEC DO-214AB molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.26 gram



#### ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	LF0506	LF0508	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	800	V
Maximum RMS voltage	$V_{RMS}$	420	560	V
Maximum DC blocking voltage	$V_{DC}$	600	800	V
Maximum average forward current 0.375"(9.5mm) lead length at $T_C=100^\circ\text{C}$	$I_{F(AV)}$	5.0		A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	120		A
Maximum forward voltage @ $I_F=5.0\text{A}$	$V_F$	0.93		V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	$I_R$	5.0	$\mu\text{A}$
	$T_j=150^\circ\text{C}$		300	$\mu\text{A}$
Typical junction capacitance $V_R=4.0\text{V}$ , $f=1\text{MHz}$	$C_J$	60	40	pF
Operating junction and storage temperature range	$T_j, T_{stg}$	-55 to +150		$^\circ\text{C}$

**THERMAL RESISTANCES**

Symbol	Parameter	LF0506	LF0508	Unit
$R_{th(j-a)}$	Junction to ambient (note1)	75		$^{\circ}C/W$

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

**MARKING**



LF	Low Forward Voltage Rectifier
05	$I_{F(AV)}=5.0A$
08	$V_{RRM}:800V$

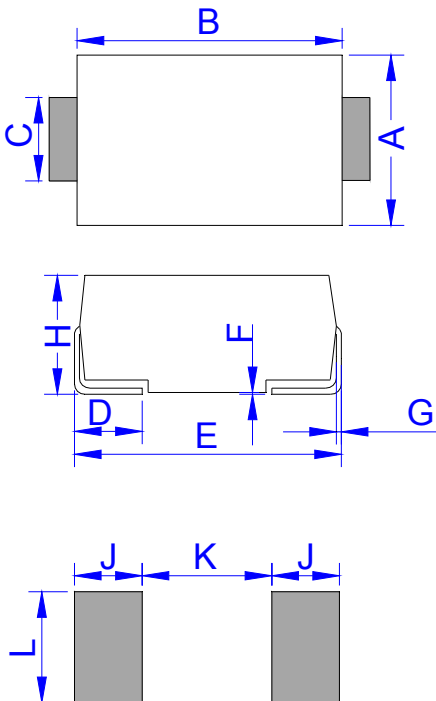
$\underline{x}H1$ : Month, 1、2、3 ~ 9、A、B、C

$3\underline{x}1$ :

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

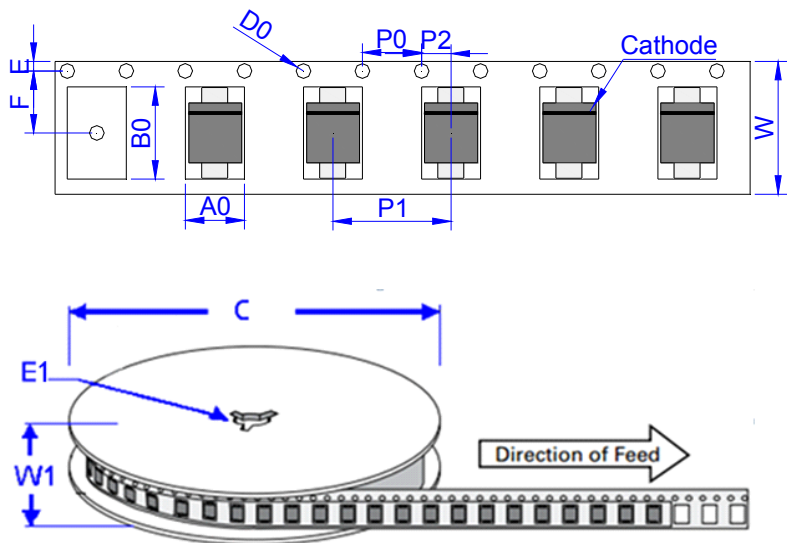
**PACKAGE MECHANICAL DATA**



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	

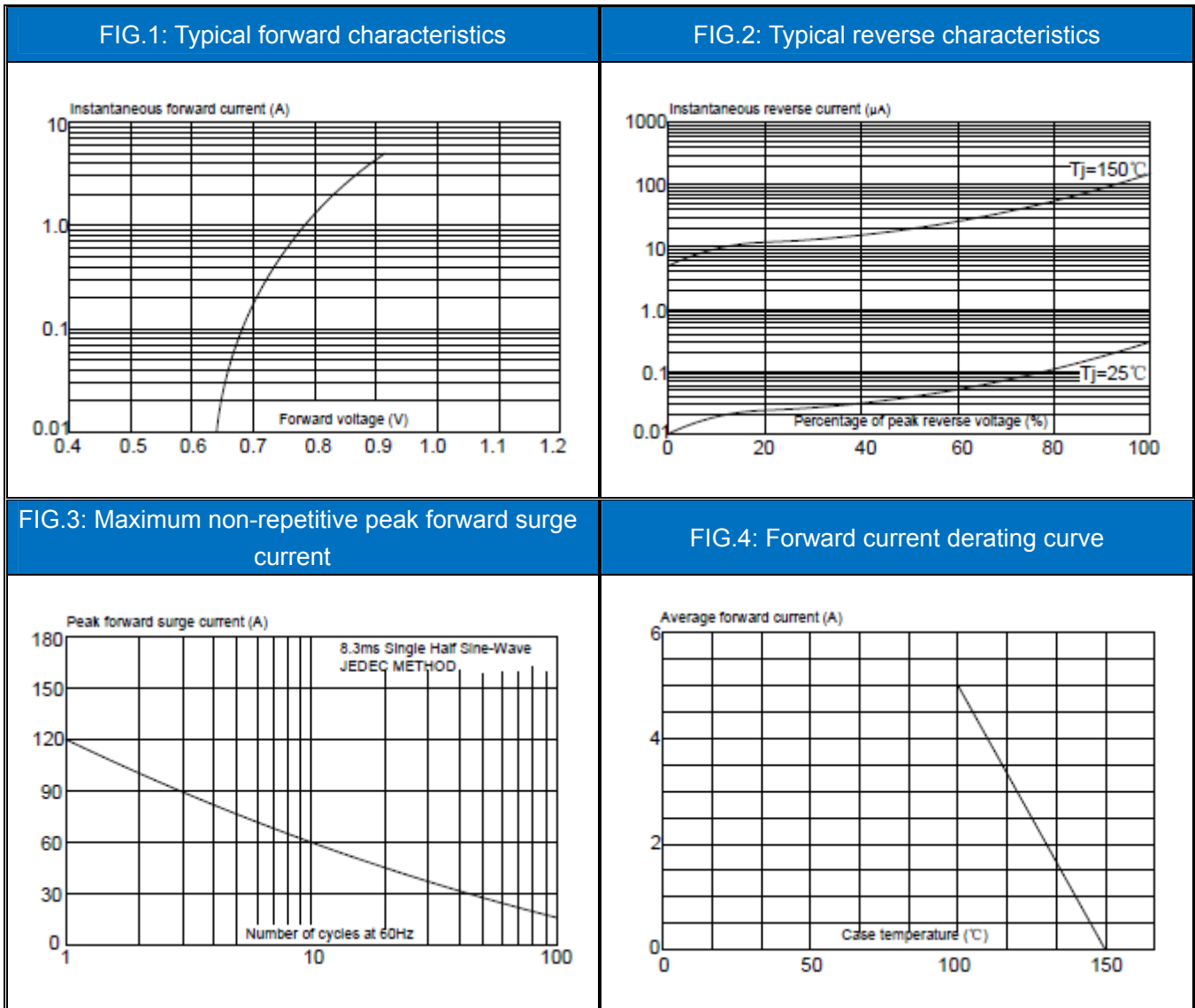
**TAPE AND REEL SPECIFICATION-SMC**



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




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