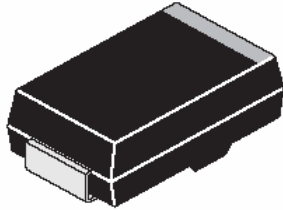


**SURFACE MOUNT SUPERFAST RECOVERY RECTIFIER**

**ER3A - ER3J**

**DO-214AB (SMC)  
SMD Plastic Package**



**ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

(Ratings at  $T_a = 25^\circ\text{C}$  unless specified otherwise, single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.)

Description	Symbols	ER3A	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	Units
Maximum Peak repetitive reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current at $T_L=75^\circ\text{C}$	$I_{(AV)}$	3.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100							Amp
Maximum Forward Voltage at 3.0A	$V_F$	0.95			1.25		1.7		Volts
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	5.0 200							uAmp
Typical Junction Capacitance (Note 1)	$C_j$	45							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	16							"C/W
Maximum Reverse Recovery Time (Note 3)	$T_{RR}$	35						50	nS
Operating Junction Temperature Range	$T_j$	-55 to +150							"C
Storage Temperature Range	$T_{stg}$	-55 to +150							"C

**NOTES:**

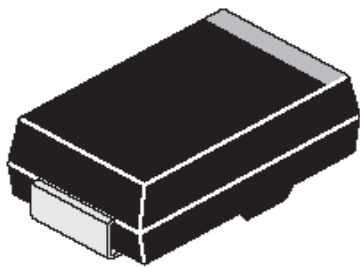
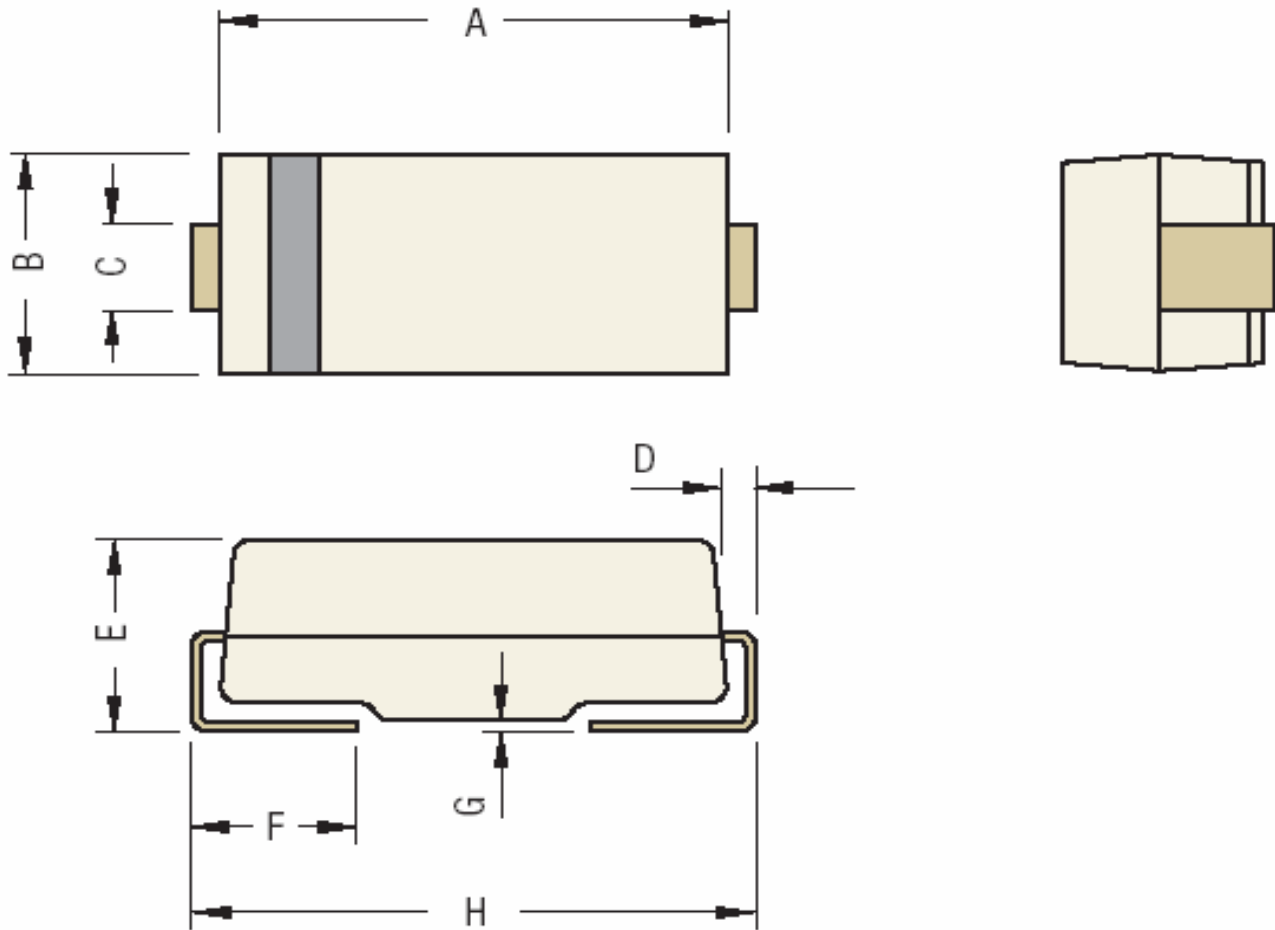
1- Measured at 1 MHz and applied reverse voltage of 4.0 V<sub>DC</sub>.

2- Thermal resistance from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

3-Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .

ER3A\_3JRev260406D

DO-214AB (SMC) SMD Plastic Package

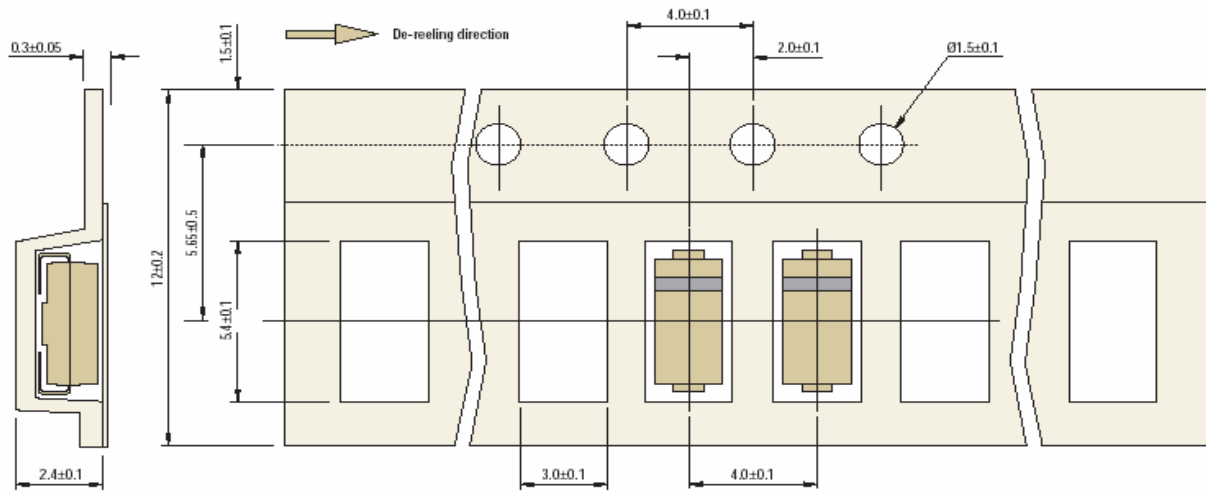


DIM	Min	Max
A	6.60	7.11
B	5.59	6.22
C	2.75	3.25
D	0.152	0.305
E	2.00	2.62
F	0.76	1.27

DIM	Min	Max
G	0.0151	0.203
H	7.75	8.13

All Dimensions are in mm

**SMC Packaging Tape**



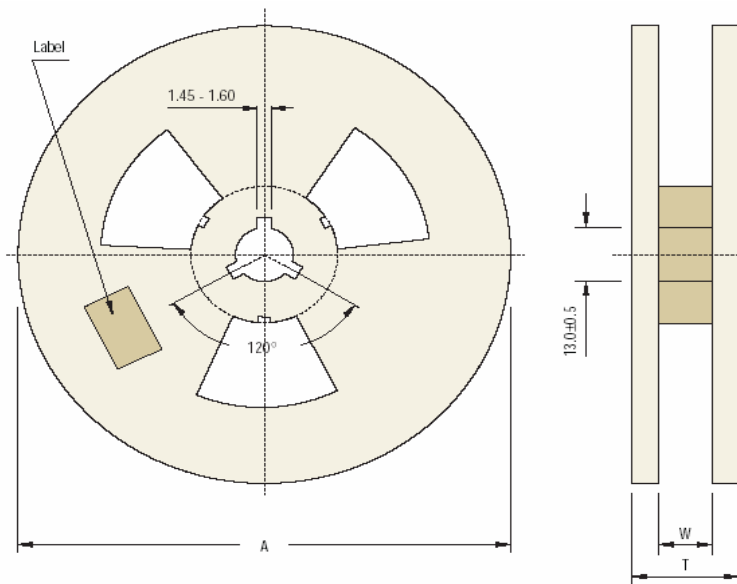
All Dimensions are in mm

**Packaging Information**

Package/	Packaging Type	Std. Packing	Inner Carton			Outer Carton		
Case Type		Qty	Qty	Size x W x H L	Gross Weight	Qty	Size L x W x H	Gross Weight
				(cm)	(Kg)		(cm)	(Kg)
DO-214AB (SMC)	T&R	1,500	1.5K	30 x 7.3 x 4		12K		

T & R: Tape and Reel

**Reel Dimensions and Components/Reel for SMD Package**



ER3A\_3JRev260406D

Reel Specifications				
Package	Tape Width	Reel Dia.	Inside Thickness	Reel Thickness
		A - Max	W	T - max
DO-214AB (SMC)	12	330	12.4 ± 2	18.4

All Dimensions are in mm

#### Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

#### Customer Notes

#### Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s). CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



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