

ER3A(H) THRU ER3J(H)

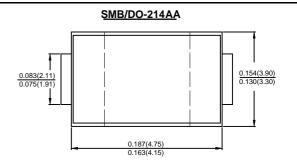
3.0AMP SURFACE MOUNT SUPERFAST RECTIFIERS

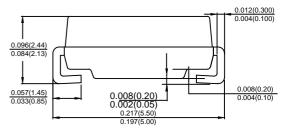
Features

- · Glass passivated junction chip
- · Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V- 0

Mechanical Data

- · Case: Molded plastic SMB
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- · Polarity: Color band dentes cathode end
- Mounting Position: AnyMaking: Type Number





Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number (Note 4)	SYMBOL	ER3A(H)	ER3B(H)	ER3C(H)	ER3D(H)	ER3E(H)	ER3G(H)	ER3J(H)	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Average Rectified Output Current @TL =100°C	İ F(AV)	3.0							Α
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	lfsм	110							Α
Forward Voltage @IF=3.0A	V _{FM}	0.95 1.25 1.7					1.7	V	
Peak Reverse Current @T _A =25 ℃	5.0								
At Rated DC Blocking Voltage @T₄ =125 ℃	I _R	100							uA
I ² t Rating for fusing (t <8.3ms)	I ² t	50.2							A^2s
Maximum Reverse Recovery Time (Note 1)	Trr	35							ns
Typical Junction Capacitance (Note 2)	Сı	50 25					pF		
Typical Thermal Resistance Junction to Ambient(Note 3)	Re JA	65							°C/W
Operating Temperature Range	TJ	-55 to+150							${\mathbb C}$
Storage Temperature Range	Тѕтс	-55 to +150							${\mathbb C}$

Note: 1.Reverse Recovery Test Conditions:IF=0.5A,IR=1.0A,IRR=0.25A.

- 2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C.
- 3. Thermal Resistance from Junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas.
- 4."H":Halogen Free.

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AVERAGE FORWARD RECIFIED CURRENT (A)

FORWARD SURGE CURRENT (A)

INVSTANTANEOUS REVERSE CURRENT (uA)

FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING

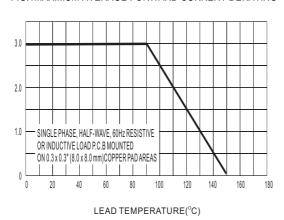
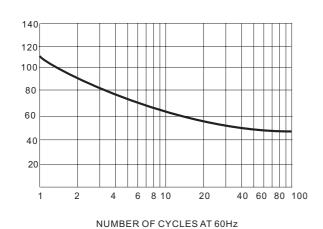
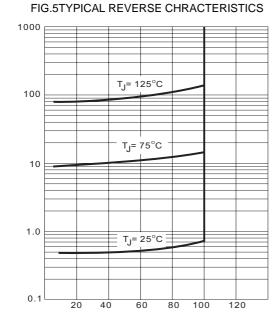


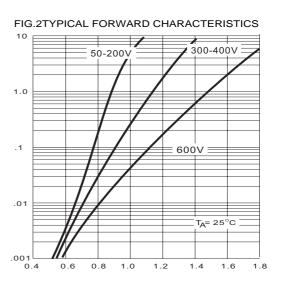
FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT





PERCENT OF RATED PEAK INVERSE VOLTGE (V)

INSTANTANEOUS FORWARD CURRENT (A)



INSTANTANEOUS FORWARD VOLTAGE (V)

FIG.4TYPICAL JUNCTION CAPACITANCE

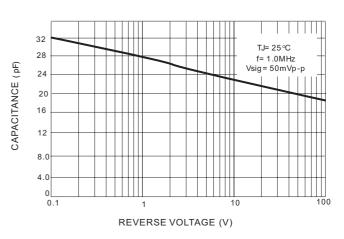
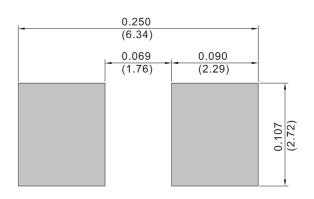


FIG.6 MOUNTING PAD LAYOUT





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