



Fast Recovery Diodes (FRD)

1 in one-package

Device type	SMD	Maximum rating V _{RRM} Volts	I _{F(AV)} ^{*1} Amps.	I _{FSM} ^{*2} Amps.	Thermal rating T _j and T _{stg} °C	Characteristics(Ta=25°C) V _{FM} Max. Volts			Package		Net mass Grams
							I _{RRM} ^{*3} Max.µA	t _{rr} µsec.			
ERA34-10		1000	0.1(Ta=60°C)	2	-40 to +140	3.0 (I _F =0.1A)	50	0.15 (I _F =I _R =0.1A)	Lead-1A	0.18	
ERA22-02		200	0.5(Ta=40°C)	10	-40 to +140	1.5 (I _F =0.5A)	10	0.4 (I _F =I _R =0.1A)	Lead-1A	0.18	
ERA22-04		400									
ERA22-06		600									
ERA22-08		800									
ERA22-10		1000									
ERB43-02		200	0.5(Ta=40°C)	10	-40 to +140	1.2 (I _F =0.5A)	10	0.4 (I _F =I _R =0.1A)	Lead-3A	0.3	
ERB43-04		400									
ERB43-06		600									
ERB43-08		800									
ERA38-04		400	0.5(Ta=25°C)	10	-40 to +150	2.5 (I _F =0.5A)	50	0.05 (I _F =0.1A I _R =0.2A)	Lead-1A	0.18	
ERA38-05		500									
ERA38-06		600									
SC201-2	SMD	200	0.5(Ta=40°C) ^{*4}	10	-40 to +140	1.5 (I _F =0.5A)	10	0.4 (I _F =I _R =0.1A)	SC	0.06	
SC201-4	SMD	400									
SC201-6	SMD	600									
SC201-8	SMD	800									
SC311-4	SMD	400	0.5(Ta=25°C) ^{*4}	10	-40 to +150	2.5 (I _F =0.5A)	50	0.05 (I _F =0.1A I _R =0.2A)	SC	0.06	
SC311-6	SMD	600									
ERA37-08		800	0.5(TI=130°C)	10	-40 to +150	3.0 (I _F =0.5A)	10	0.25 (I _F =I _R =0.1A)	Lead-1A	0.18	
ERA37-10		1000									
SC211-2	SMD	200	0.8(Ta=25°C) ^{*4}	30	-40 to +140	1.05(I _F =0.8A)	10	0.4 (I _F =I _R =0.1A)	SC	0.06	
SC211-4	SMD	400									
ERA18-02		200	0.8(Ta=40°C)	30	-40 to +140	1.05(I _F =0.8A)	10	0.4 (I _F =I _R =0.1A)	Lead-1A	0.18	
ERA18-04		400									
ERB38-04		400	0.8(Ta=25°C)	20	-40 to +150	2.5 (I _F =0.8A)	50	0.05 (I _F =0.1A I _R =0.2A)	Lead-3A	0.3	
ERB38-05		500									
ERB38-06		600									
SC321-2	SMD	200	1.0(Ta=25°C) ^{*4}	40	-40 to +150	1.05(I _F =1.0A)	50	0.1 (I _F =I _R =0.1A)	SC	0.06	
ERA32-01		100	1.0(Ta=40°C)	40	-40 to +150	0.92(I _F =1.0A)	10	0.1 (I _F =I _R =0.1A)	Lead-3A	0.3	
ERA32-02		200					50				
ERB35-02		200	1.0(Ta=25°C)	30	-40 to +150	1.1 (I _F =1.0A)	10	0.1 (I _F =I _R =0.1A)	Lead-4	0.5	
ERB44-02		200	1.0(Ta=40°C)	30	-40 to +140	1.1 (I _F =1.0A)	10	0.4 (I _F =I _R =0.1A)	Lead-3A	0.3	
ERB44-04		400									
ERB44-06		600									
ERB44-08		800									
ERB44-10		1000	1.0(Ta=25°C)			1.5 (I _F =1.0A)					
ERC38-04		400	1.0(Ta=25°C)	40	-40 to +150	2.5 (I _F =1.0A)	50	0.05 (I _F =0.1A I _R =0.2A)	Lead-6A	0.5	
ERC38-05		500									
ERC38-06		600									
ERB37-08		800	1.0(TI=125°C)	30	-40 to +150	3.0 (I _F =1.0A)	10	0.25 (I _F =I _R =0.1A)	Lead-3A	0.3	
ERB37-10		1000									
ERB06-13		1300	1.0(Ta=40°C)	50	-40 to +150	1.5 (I _F =4.0A)	10	4.0 (I _F =I _R =0.1A)	Lead-3A	0.3	
ERB06-15		1500									
CB112-13		1300	1.0(Ta=40°C)	30	-40 to +150	1.3 (I _F =1.0A)	50	1.5 (I _F =I _R =0.1A)	Lead-3	0.3	
ERB32-01		100	1.2(Ta=40°C)	50	-40 to +150	0.92(I _F =1.2A)	10	0.1 (I _F =I _R =0.1A)	Lead-5A	0.5	
ERB32-02		200					50				
ERC18-02		200	1.2(Ta=40°C)	40	-40 to +140	0.95(I _F =1.2A)	10	0.4 (I _F =I _R =0.1A)	Lead-6A	0.6	
ERC18-04		400									
ERC25-04		400	1.2(Ta=40°C)	50	-40 to +125	1.1 (I _F =1.2A)	10	0.4 (I _F =I _R =0.1A)	Lead-6A	0.6	
ERC25-06		600									
ERC25-08		800									

() Conditions *¹ Resistive load *² Sine wave, 10ms *³ V_R=V_{RRM}

*⁴ Mounted to fabric base epoxy resin printed circuits (land 15 x 15mm)

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Device type	SMD	Maximum rating V _{RRM} Volts	I _{F(AV)} ^{*1} Amps.	I _{FSM} ^{*2} Amps.	Thermal rating T _j and T _{stg} °C	Characteristics(Ta=25°C)			Package	Net mass Grams
						V _{FM} Max. Volts	I _{RRM} ^{*3} Max.µA	t _{rr} µsec.		
ERC37-08		800	1.2(TI=120°C)	40	-40 to +150	3.0 (I _F =1.2A)	10	0.3 (I _F =I _R =0.1A)	Lead-6A	0.5
ERC37-10		1000								
ERC30-01		100	1.5(Ta=40°C)	60	-40 to +150	0.92(I _F =1.5A)	10	0.1 (I _F =I _R =0.1A)	Lead-6A	0.5
ERC30-02		200					50			
ERD38-04		400	1.5(Ta=25°C)	80	-40 to +150	2.5 (I _F =1.5A)	100	0.05 (I _F =0.1A	Lead-7	1.2
ERD38-05		500						I _R =0.2A)		
ERD38-06		600								
ERD28-04		400	1.5(Ta=25°C)	70	-40 to +125	1.1 (I _F =1.5A)	10	0.4 (I _F =I _R =0.1A)	Lead-7	1.2
ERD28-06		600								
ERD28-08		800								
ERD37-08		800	1.5(TI=120°C)	50	-40 to +150	3.0 (I _F =1.5A)	10	0.3 (I _F =I _R =0.1A)	Lead-7	1.2
ERD37-10		1000								
ERC06-13		1300	1.5(Ta=40°C)	50	-40 to +150	1.5 (I _F =4.0A)	10	4.0 (I _F =I _R =0.1A)	Lead-7	1.2
ERC06-15		1500								
ERD07-13		1300	1.5(TI=125°C)	50	-40 to +150	1.2 (I _F =4.0A)	10	1.5 (I _F =I _R =0.1A)	Lead-7	1.2
ERD07-15		1500								
ERC35-02		200	2.5(Ta=25°C)	50	-40 to +150	1.2 (I _F =2.5A)	20	0.1 (I _F =I _R =0.1A)	Lead-7	1.2
ERD29-02		200	2.5(Ta=25°C)	70	-40 to +125	1.1 (I _F =2.5A)	10	0.4 (I _F =I _R =0.1A)	Lead-8	2.2
ERD29-04		400								
ERD29-06		600								
ERD29-08		800								
ERD32-01		100	3.0(Ta=25°C) ^{*4}	150	-40 to +150	0.92(I _F =3.0A)	10	0.1 (I _F =I _R =0.1A)	Lead-7	1.2
ERD32-02		200					50			
ERD09-13		1300	3.0(TI=100°C)	50	-40 to +150	1.5 (I _F =4.0A)	50	0.6 (I _F =I _R =0.1A)	Lead-8	2.2
ERD09-15		1500								
ERE41-15		1500	3.0(TI=120°C)	50	-40 to +150	1.6 (I _F =4.0A)	10	2.2 (I _F =I _R =0.1A)	Lead-8	2.2
FE201-6		600	3.5(Ta=25°C)	70	-40 to +150	1.3 (I _F =3.5A)	10	0.4 (I _F =I _R =0.1A)	Lead-7B	1.4
FE301-1		100	4.0(Ta=25°C)	100	-40 to +150	0.85(I _F =2.0A)	10	0.2 (I _F =I _R =0.1A)	Lead-7B	1.4

1 in one-package

Device type	SMD	Maximum rating V _{RRM} Volts	I _{F(AV)} ^{*1} Amps.	I _{FSM} ^{*2} Amps.	Thermal rating T _j and T _{stg} °C	Characteristics(Ta=25°C)				Package	Net mass Grams
						V _{FM} Max. Volts	I _{RRM} ^{*3} Max.µA	t _{rr} µsec.	R _{th(j-c)} °C/W		
YB311S6		600	4(Tc=100°C)	50	-40 to +150	2.6 (I _F =4.0A)	100	0.06	3.5	TO-220F17	2.3
ERC20-02		200	5(Tc=125°C)	70	-40 to +150	1.3 (I _F =5.0A)	50	0.4	3.0	TO-220AB	2.0
ERC20-04		400									
ERC20-06		600				1.5 (I _F =5.0A)					
ERC20-08		800									
ERC20M-02		200	5(Tc=125°C)	70	-40 to +150	1.3 (I _F =5.0A)	50	0.4	3.5	TO-220F17	2.3
ERC20M-04		400									
ERC20M-06		600				1.5 (I _F =5.0A)					
ERC20M-08		800									
YG121S15		1500	5(Tc=88°C)	50	-40 to +150	2.0 (I _F =3.0A)	50	0.5	3.5	TO-220F15	2.3
ERD08M-15		1500	5(Tc=115°C)	50	-40 to +150	1.2 (I _F =5.0A)	10	1.5	2.5	TO-3PF	6.0
ERE42M-15		1500	5(Tc=120°C)	50	-40 to +150	1.6 (I _F =5.0A)	10	2.2	2.5	TO-3PF	6.0
YG123S15		1500	6(Tc=92°C)	80	-40 to +150	2.0 (I _F =4.0A)	50	0.5	3.5	TO-220F15	2.3
PG123S15		1500	8(Tc=110°C)	80	-40 to +150	2.0 (I _F =4.0A)	50	0.5	2.5	TO-3PF	6.0
PG124S15		1500	10(Tc=95°C)	100	-40 to +150	2.0 (I _F =4.0A)	50	0.5	2.5	TO-3PF	6.0
PG127S17		1700	10(Tc=89°C)	100	-40 to +150	2.7 (I _F =4.0A)	500	0.5	2.0	TO-3PF	6.0

() Conditions

^{*1} Resistive load ^{*2} Sine wave, 10ms ^{*3} V_R=V_{RRM}

^{*4} Cu cooling fin 15x15x1mm (both leads)



Fast Recovery Diodes (FRD)

2 in one-package

Device type	SMD	Maximum rating		I _{FSM} * ² Amps.	Thermal rating T _j and T _{stg} °C	Characteristics(Ta=25°C)				Package	Net mass Grams
		V _{RRM} Volts	I _O * ¹ Amps.			V _{FM} Max. Volts	I _{RRM} * ³ Max.µA	t _{rr} * ⁴ µsec.	R _{th(j-c)} °C/W		
ESAB33-02CS		200	5 (Tc=110°C)	30	-40 to +150	1.4 (I _F =2.5A)	100	0.1	5.0	TO-220AB	2.0
ESAB34M-02C		200	5 (Tc=110°C)	30	-40 to +150	1.4 (I _F =2.5A)	100	0.1	5.0	TO-220F17	2.3
ESAC39-04C, N, D		400	5 (Tc=115°C)	20	-40 to +150	2.5 (I _F =2.0A)	100	0.05 * ⁴	3.0	TO-220AB	2.0
ESAC39-06C, N, D		600									
ESAC39M-04C, N,D		400	5 (Tc=110°C)	20	-40 to +150	2.5 (I _F =2.0A)	100	0.05 * ⁴	3.5	TO-220F17	2.3
ESAC39M-06C, N,D		600									
ESAC33-02C, N, D		200	8 (Tc=98°C)	30	-40 to +150	1.4 (I _F =2.0A)	500	0.1	3.0	TO-220AB	2.0
ESAC33M-02C,N,D		200	8 (Tc=95°C)	30	-40 to +150	1.4 (I _F =2.0A)	500	0.1	3.5	TO-220F17	2.3
ESAC33-02CS		200	10 (Tc=103°C)	50	-40 to +150	1.4 (I _F =5.0A)	100	0.1	3.0	TO-220AB	2.0
ESAC34M-02C		200	10 (Tc=100°C)	50	-40 to +150	1.4 (I _F =5.0A)	100	0.1	3.5	TO-220F17	2.3
ESAC25-02C, N, D		200	10 (Tc=106°C)	70	-40 to +150	1.3 (I _F =2.5A)	50	0.4	3.0	TO-220AB	2.0
ESAC25-04C, N, D		400									
ESAC25M-02C,N,D		200	10 (Tc=95°C)	70	-40 to +150	1.3 (I _F =2.5A)	50	0.4	3.5	TO-220F17	2.3
ESAC25M-04C,N,D		400									
ESAD39-04C, N, D		400	10 (Tc=98°C)	50	-40 to +150	2.5 (I _F =4.0A)	100	0.05 * ⁴	2.0	TO-3P	5.5
ESAD39-06C, N, D		600									
ESAD39M-04C,N,D		400	10 (Tc=85°C)	50	-40 to +150	2.5 (I _F =4.0A)	100	0.05 * ⁴	2.5	TO-3PF	6.0
ESAD39M-06C,N,D		600									
ESAD33-02C, N, D		200	15 (Tc=88°C)	80	-40 to +150	1.5 (I _F =5.0A)	1000	0.1	2.0	TO-3P	5.5
ESAD25-02C, N, D		200	15 (Tc=100°C)	120	-40 to +150	1.3 (I _F =8.0A)	100	0.4	2.0	TO-3P	5.5
ESAD25-04C, N, D		400									
ESAD25M-02C,N,D		200	15 (Tc=98°C)	120	-40 to +150	1.3 (I _F =8.0A)	100	0.4	2.5	TO-3PF	6.0
ESAD25M-04C,N,D		400									
ESAD33-02CS		200	20 (Tc=100°C)	80	-40 to +150	1.25(I _F =5.0A)	500	0.1	1.5	TO-3P	5.5

() Conditions

*¹ 50Hz Square wave duty 1/2 (Average forward current of centertap full wave connection)

*² Sine wave, 10ms *³ V_R=V_{RRM}

*⁴ I_F=0.1A, I_R=0.2A, I_{rec}=0.05A *⁵ I_F=I_R=0.1A

2 in one-package

Device type	SMD	Maximum rating		I _{FSM} * ² Amps.	Thermal rating T _j and T _{stg} °C	Characteristics(Ta=25°C)				Package	Net mass Grams
		V _{RRM} Volts	I _O * ¹ Amps.			V _{FM} Max. Volts	I _{RRM} * ³ Max.µA	t _{rr} * ⁴ µsec.	R _{th(j-c)} °C/W		
ESC011M-15* ⁵		400	5 (Tc=105°C)	50	-40 to +150	1.2 (I _F =4A)	10	0.30	2.5	TO-3PF	6.0
ESC011M-15* ⁶		1500	5 (Tc=105°C)	50	-40 to +150	1.2 (I _F =4A)	10	1.50	2.5	TO-3PF	6.0
ESC021M-15* ⁵		600	5 (Tc=90°C)	50	-40 to +150	3.0 (I _F =4A)	100	0.15	2.5	TO-3PF	6.0
ESC021M-15* ⁶		1500	5 (Tc=90°C)	50	-40 to +150	1.6 (I _F =4A)	10	2.20	2.5	TO-3PF	6.0
ESC023M-15* ⁵		600	5 (Tc=100°C)	50	-40 to +150	3.0 (I _F =4A)	500	0.15	2.5	TO-3PF	6.0
ESC023M-15* ⁶		1500	5 (Tc=100°C)	80	-40 to +150	1.8 (I _F =4A)	50	0.60	2.5	TO-3PF	6.0

() Conditions

*¹ 50Hz Square wave duty 1/2 (Average forward current of centertap full wave connection)

*² Sine wave, 10ms *³ V_R=V_{RRM}

*⁴ I_F=I_R=0.1A

*⁵ Pin No.1 to 2: For modulate

*⁶ Pin No.2 to 3: For dampers