



SUPER FAST RECTIFIERS

SENSITRON SEMICONDUCTOR

OPERATING AND STORAGE TEMPERATURE -65°C TO +150°C

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25°C T _A	Maximum Forward Voltage @25°C T _A		Maximum Reverse Recovery Time
	PRV	I _O @ T _A		I _{FM} (Surge)	I _R	I _{FM}	V _{FM}	T _{rr}
	V _{PK}	A _{AV}	°C	A _{PK}	μAdc	V _{PK}	V _{PK}	ns

1.0 AMPERE-SUPER FAST / SMB/ DO-214AA



ER1A	50	1.0	100	30	5.0	1.0	0.95	35
ER1B	100	1.0	100	30	5.0	1.0	0.95	35
ER1C	150	1.0	100	30	5.0	1.0	0.95	35
ER1D	200	1.0	100	30	5.0	1.0	0.95	35
ER1E	300	1.0	100	30	5.0	1.0	1.25	35
ER1G	400	1.0	100	30	5.0	1.0	1.25	35
ER1J	600	1.0	100	30	5.0	1.0	1.7	35

1.0 AMPERE-SUPER FAST / SMB (DO-214AA)



ER1A	50	1.0	55	30	5.0	1.0	0.95	35
ER1B	100	1.0	55	30	5.0	1.0	0.95	35
ER1C	150	1.0	55	30	5.0	1.0	0.95	35
ER1D	200	1.0	55	30	5.0	1.0	1.25	35
ER1E	300	1.0	55	30	5.0	1.0	1.25	35
ER1G	400	1.0	55	30	5.0	1.0	1.25	55
ER1J	600	1.0	55	30	5.0	1.0	1.25	55

1.0 AMPERE-SUPER FAST / SMA/ DO-214AC



ES1A	50	1.0	120	30	5.0	1.0	0.95	35
ES1B	100	1.0	120	30	5.0	1.0	0.95	35
ES1C	150	1.0	120	30	5.0	1.0	0.95	35
ES1D	200	1.0	120	30	5.0	1.0	0.95	35
ES1E	300	1.0	120	30	5.0	1.0	1.25	35
ES1G	400	1.0	120	30	5.0	1.0	1.25	35
ES1J	600	1.0	120	30	5.0	1.0	1.7	35

1.0 AMPERE-SUPER FAST / SMA (DO-214AC)



ES1A	50	1.0	55	30	5.0	1.0	0.95	35
ES1B	100	1.0	55	30	5.0	1.0	0.95	35
ES1C	150	1.0	55	30	5.0	1.0	0.95	35
ES1D	200	1.0	55	30	5.0	1.0	1.25	35
ES1E	300	1.0	55	30	5.0	1.0	1.25	35
ES1G	400	1.0	55	30	5.0	1.0	1.25	55
ES1J	600	1.0	55	30	5.0	1.0	1.25	55

1.0 AMPERE-SUPER FAST / DO-41



SF11	50	1.0	55	30	5.0	1.0	0.95	35
SF12	100	1.0	55	30	5.0	1.0	0.95	35
SF13	150	1.0	55	30	5.0	1.0	0.95	35
SF14	200	1.0	55	30	5.0	1.0	0.95	35
SF15	300	1.0	55	30	5.0	1.0	1.25	35
SF16	400	1.0	55	30	5.0	1.0	1.25	35
SF18	600	1.0	55	30	5.0	1.0	1.25	35

NOTE: T_{rr} Test Conditions: I_F=0.5A, I_R=1.0A, Recovery to 0.25A.



SENSITRON SEMICONDUCTOR

SUPER FAST RECTIFIERS

OPERATING AND STORAGE TEMPERATURE –65°C TO +150°C

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25°C T _A	Maximum Forward Voltage @25°C T _A		Maximum Reverse Recovery Time
	PRV	I _O @ T _A		I _{FM} (Surge)	I _R	I _{FM}	V _{FM}	T _{rr}
	V _{PK}	A _{AV}	°C	A _{PK}	μAdc	V _{PK}	V _{PK}	ns

2.0 AMPERE-SUPER FAST / SMB/ DO-214AA

ER2A	50	2.0	110	50	5.0	2.0	0.95	35
ER2B	100	2.0	110	50	5.0	2.0	0.95	35
ER2C	150	2.0	110	50	5.0	2.0	0.95	35
ER2D	200	2.0	110	50	5.0	2.0	0.95	35
ER2E	300	2.0	110	50	5.0	2.0	1.25	35
ER2G	400	2.0	110	50	5.0	2.0	1.25	35
ER2J	600	2.0	110	50	5.0	2.0	1.7	35

2.0 AMPERE-SUPER FAST / SMB (DO-214AA)

ER2A	50	2.0	55	50	5.0	2.0	0.95	35
ER2B	100	2.0	55	50	5.0	2.0	0.95	35
ER2C	150	2.0	55	50	5.0	2.0	0.95	35
ER2D	200	2.0	55	50	5.0	2.0	1.25	35
ER2E	300	2.0	55	50	5.0	2.0	1.25	35
ER2G	400	2.0	55	50	5.0	2.0	1.25	55
ER2J	600	2.0	55	50	5.0	2.0	1.25	55

2.0 AMPERE-SUPER FAST / DO-15

SF21	50	2.0	55	75	5.0	2.0	0.95	35
SF22	100	2.0	55	75	5.0	2.0	0.95	35
SF23	150	2.0	55	75	5.0	2.0	0.95	35
SF24	200	2.0	55	75	5.0	2.0	0.95	35
SF25	300	2.0	55	75	5.0	2.0	1.25	35
SF26	400	2.0	55	75	5.0	2.0	1.25	35
SF28	600	2.0	55	75	5.0	2.0	1.25	35

3.0 AMPERE-SUPER FAST / DPAK/ TO-252

ED302S	200	3.0	75	75	5.0	3.0	0.95	35
ED303S	300	3.0	75	75	5.0	3.0	1.25	35
ED304S	400	3.0	75	75	5.0	3.0	1.25	35
ED306S	600	3.0	75	75	5.0	3.0	1.7	35

3.0 AMPERE-SUPER FAST / DPAK/ TO-252

ED302YS	200	3.0	75	75	5.0	3.0	0.95	35
ED303YS	300	3.0	75	75	5.0	3.0	1.25	35
ED304YS	400	3.0	75	75	5.0	3.0	1.25	35
ED306YS	600	3.0	75	75	5.0	3.0	1.7	35

3.0 AMPERE-SUPER FAST / SMC/ DO-214AB

ER3A	50	3.0	75	100	5.0	3.0	0.95	35
ER3B	100	3.0	75	100	5.0	3.0	0.95	35
ER3C	150	3.0	75	100	5.0	3.0	0.95	35
ER3D	200	3.0	75	100	5.0	3.0	0.95	35
ER3E	300	3.0	75	100	5.0	3.0	1.25	35
ER3G	400	3.0	75	100	5.0	3.0	1.25	35
ER3J	600	3.0	75	100	5.0	3.0	1.7	35

NOTE: T_{rr} Test Conditions: I_F=0.5A, I_R=1.0A, Recovery to 0.25A.



SENSITRON SEMICONDUCTOR

SUPER FAST RECTIFIERS

OPERATING AND STORAGE TEMPERATURE -65°C TO +150°C

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25°C T _A	Maximum Forward Voltage @25°C T _A		Maximum Reverse Recovery Time
	PRV	I _O @ T _A		I _{FM} (Surge)	I _R	I _{FM}	V _{FM}	T _{rr}
	V _{PK}	A _{AV}	°C	A _{PK}	? Adc	V _{PK}	V _{PK}	ns

3.0 AMPERE-SUPER FAST / SMC (DO-214AB)

ER3A	50	3.0	55	100	10	3.0	0.95	35
ER3B	100	3.0	55	100	10	3.0	0.95	35
ER3C	150	3.0	55	100	10	3.0	0.95	35
ER3D	200	3.0	55	100	10	3.0	1.25	35
ER3E	300	3.0	55	100	10	3.0	1.25	35
ER3G	400	3.0	55	100	10	3.0	1.25	55
ER3J	600	3.0	55	100	10	3.0	1.25	55

3.0 AMPERE-SUPER FAST / DO-27

SF31	50	3.0	55	125	5.0	3.0	0.95	35
SF32	100	3.0	55	125	5.0	3.0	0.95	35
SF33	150	3.0	55	125	5.0	3.0	0.95	35
SF34	200	3.0	55	125	5.0	3.0	0.95	35
SF35	300	3.0	55	125	5.0	3.0	1.25	35
SF36	400	3.0	55	125	5.0	3.0	1.25	35
SF38	600	3.0	55	125	5.0	3.0	1.25	35

5.0 AMPERE-SUPER FAST / DPAK/ TO-252

ED502S	200	5.0	75	75	5.0	5.0	0.95	35
ED503S	300	5.0	75	75	5.0	5.0	1.25	35
ED504S	400	5.0	75	75	5.0	5.0	1.25	35
ED506S	600	5.0	75	75	5.0	5.0	1.7	35

5.0 AMPERE-SUPER FAST / DPAK/ TO-252

ED502YS	200	5.0	75	75	5.0	5.0	0.95	35
ED503YS	300	5.0	75	75	5.0	5.0	1.25	35
ED504YS	400	5.0	75	75	5.0	5.0	1.25	35
ED506YS	600	5.0	75	75	5.0	5.0	1.7	35

5.0 AMPERE-SUPER FAST / DO-27

SF51	50	5.0	55	150	5.0	5.0	0.95	35
SF52	100	5.0	55	150	5.0	5.0	0.95	35
SF53	150	5.0	55	150	5.0	5.0	0.95	35
SF54	200	5.0	55	150	5.0	5.0	0.95	35
SF55	300	5.0	55	150	5.0	5.0	1.25	35
SF56	400	5.0	55	150	5.0	5.0	1.25	35
SF58	600	5.0	55	150	5.0	5.0	1.25	35

6.0 AMPERE-SUPER FAST / DPAK / TO-252AA

ER602DC	200	6.0	75	75	5.0	6.0	0.95	35
ER603DC	300	6.0	75	75	5.0	6.0	1.25	35
ED602CS	200	6.0	75	75	5.0	6.0	0.95	35
ED603CS	300	6.0	75	75	5.0	6.0	1.3	35
ED604CS	400	6.0	75	75	5.0	6.0	1.3	35
ED606CS	600	6.0	75	75	5.0	6.0	1.7	35

NOTE: T_{rr} Test Conditions: I_F=0.5A, I_R=1.0A, Recovery to 0.25A.



SUPER FAST RECTIFIERS

SENSITRON SEMICONDUCTOR

OPERATING AND STORAGE TEMPERATURE -65°C TO +150°C

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25°C T _A	Maximum Forward Voltage @25°C T _A		Maximum Reverse Recovery Time
	PRV	I _O @ T _A		I _{FM} (Surge)	I _R	I _{FM}	V _{FM}	T _{rr}
	V _{PK}	A _{AV}	°C	A _{PK}	? Adc	V _{PK}	V _{PK}	ns

6.0 AMPERE-SUPER FAST / DO-201AD



SF61	50	6.0	50	150	5.0	6.0	0.975	35
SF62	100	6.0	50	150	5.0	6.0	0.975	35
SF63	150	6.0	50	150	5.0	6.0	0.975	35
SF64	200	6.0	50	150	5.0	6.0	0.975	35
SF65	300	6.0	50	150	5.0	6.0	1.3	35
SF66	400	6.0	50	150	5.0	6.0	1.3	35

8.0 AMPERE-SUPER FAST / DPAK / TO-252



ED802CS	200	8.0	85	85	5.0	8.0	0.95	35
ED803CS	300	8.0	85	85	5.0	8.0	1.3	50
ED804CS	400	8.0	85	85	5.0	8.0	1.3	50
ED806CS	600	8.0	85	85	5.0	8.0	1.7	50

8.0 AMPERE-SUPER FAST / TO-220A



ER800	50	8.0	105	125	10	8.0	0.975	35
ER801	100	8.0	105	125	10	8.0	0.975	35
ER801A	150	8.0	105	125	10	8.0	0.975	35
ER802	200	8.0	105	125	10	8.0	0.975	35
ER803	300	8.0	105	125	10	8.0	1.3	50
ER804	400	8.0	105	125	10	8.0	1.3	50
SF801G	50	8.0	105	125	10	8.0	0.975	35
SF802G	100	8.0	105	125	10	8.0	0.975	35
SF803G	150	8.0	105	125	10	8.0	0.975	35
SF804G	200	8.0	105	125	10	8.0	0.975	35
SF805G	300	8.0	105	125	10	8.0	1.3	35
SF806G	400	8.0	105	125	10	8.0	1.3	35

8.0 AMPERE-SUPER FAST / D²PAK/TO-263



ER800D	50	8.0	100	125	10	8.0	0.95	35
ER801D	100	8.0	100	125	10	8.0	0.95	35
ER801AD	150	8.0	100	125	10	8.0	0.95	35
ER802D	200	8.0	100	125	10	8.0	0.95	35
ER803D	300	8.0	100	125	10	8.0	1.3	50
ER804D	400	8.0	100	125	10	8.0	1.3	50

8.0 AMPERE-SUPER FAST / ITO-220A



ER800F	50	8.0	105	125	10	8.0	0.975	35
ER801F	100	8.0	105	125	10	8.0	0.975	35
ER801AF	150	8.0	105	125	10	8.0	0.975	35
ER802F	200	8.0	105	125	10	8.0	0.975	35
ER803F	300	8.0	105	125	10	8.0	1.3	50
ER804F	400	8.0	105	125	10	8.0	1.3	50

NOTE: T_{rr} Test Conditions: I_F=0.5A, I_R=1.0A, Recovery to 0.25A.



SENSITRON SEMICONDUCTOR

SUPER FAST RECTIFIERS

OPERATING AND STORAGE TEMPERATURE –65°C TO +150°C

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25°C T _A	Maximum Forward Voltage @25°C T _A		Maximum Reverse Recovery Time
	PRV	I _O @ T _A		I _{FM} (Surge)	I _R	I _{FM}	V _{FM}	T _{rr}
	V _{PK}	A _{AV}	°C	A _{PK}	μA _{dc}	V _{PK}	V _{PK}	ns

10.0 AMPERE-SUPER FAST / DPAK / TO-252

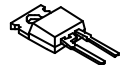
ED1002CS	200	10.0	100	100	5.0	10.0	0.95	35
ED1003CS	300	10.0	100	100	5.0	10.0	1.3	50
ED1004CS	400	10.0	100	100	5.0	10.0	1.3	50
ED1006CS	600	10.0	100	100	5.0	10.0	1.7	50

10.0 AMPERE-SUPER FAST / TO-220A

ER1000	50	10.0	105	150	10	10.0	0.95	35
ER1001	100	10.0	105	150	10	10.0	0.95	35
ER1001A	150	10.0	105	150	10	10.0	0.95	35
ER1002	200	10.0	105	150	10	10.0	0.95	35
ER1003	300	10.0	105	150	10	10.0	1.3	50
ER1004	400	10.0	105	150	10	10.0	1.3	50

10.0 AMPERE-SUPER FAST / TO-220

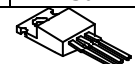
ER1000CT	50	10.0	100	150	10	5.0	0.95	35
ER1001CT	100	10.0	100	150	10	5.0	0.95	35
ER1001ACT	150	10.0	100	150	10	5.0	0.95	35
ER1002CT	200	10.0	100	150	10	5.0	0.95	35
ER1003CT	300	10.0	100	150	10	5.0	1.3	50
ER1004CT	400	10.0	100	150	10	5.0	1.3	50
ER1006CT	600	10.0	100	150	10	5.0	1.7	50

10.0 AMPERE-SUPER FAST / ITO-220A

ER1000F	50	10.0	105	150	10	10.0	0.95	35
ER1001F	100	10.0	105	150	10	10.0	0.95	35
ER1001AF	150	10.0	105	150	10	10.0	0.95	35
ER1002F	200	10.0	105	150	10	10.0	0.95	35
ER1003F	300	10.0	105	150	10	10.0	1.3	50
ER1004F	400	10.0	105	150	10	10.0	1.3	50

10.0 AMPERE-SUPER FAST / ITO-220

ER1000FCT	50	10.0	100	150	10	5.0	0.95	35
ER1001FCT	100	10.0	100	150	10	5.0	0.95	35
ER1001AFCT	150	10.0	100	150	10	5.0	0.95	35
ER1002FCT	200	10.0	100	150	10	5.0	0.95	35
ER1003FCT	300	10.0	100	150	10	5.0	1.3	50
ER1004FCT	400	10.0	100	150	10	5.0	1.3	50
ER1006FCT	600	10.0	100	150	10	5.0	1.7	50

10.0 AMPERE-SUPER FAST / TO-220

SF1001G	50	10.0	100	125	10	10.0	0.975	35
SF1002G	100	10.0	100	125	10	10.0	0.975	35
SF1003G	150	10.0	100	125	10	10.0	0.975	35
SF1004G	200	10.0	100	125	10	10.0	0.975	35
SF1005G	300	10.0	100	125	10	10.0	1.3	35
SF1006G	400	10.0	100	125	10	10.0	1.3	35

NOTE: T_{rr} Test Conditions: I_F=0.5A, I_R=1.0A, Recovery to 0.25A.



SENSITRON SEMICONDUCTOR

SUPER FAST RECTIFIERS

OPERATING AND STORAGE TEMPERATURE –65°C TO +150°C

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25°C T _A	Maximum Forward Voltage @25°C T _A		Maximum Reverse Recovery Time
	PRV	I _O @ T _A		I _{FM} (Surge)	I _R	I _{FM}	V _{FM}	T _{rr}
	V _{PK}	A _{AV}	°C	A _{PK}	μA _{dc}	V _{PK}	V _{PK}	ns

16.0 AMPERE-SUPER FAST / TO-220

ER1600	50	16.0	105	125	10	16.0	0.95	35
ER1601	100	16.0	105	125	10	16.0	0.95	35
ER1601A	150	16.0	105	125	10	16.0	0.95	35
ER1602	200	16.0	105	125	10	16.0	0.95	35
ER1603	300	16.0	105	125	10	16.0	1.3	50
ER1604	400	16.0	105	125	10	16.0	1.3	50
SF1601G	50	16.0	105	125	10	16.0	0.975	35
SF1602G	100	16.0	105	125	10	16.0	0.975	35
SF1603G	150	16.0	105	125	10	16.0	0.975	35
SF1604G	200	16.0	105	125	10	16.0	0.975	35
SF1605G	300	16.0	105	125	10	16.0	1.3	35
SF1606G	400	16.0	105	125	10	16.0	1.3	35

16.0 AMPERE-SUPER FAST / D²PAK / TO-263

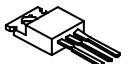
ER1600DC	50	16.0	90	125	10	16.0	0.95	35
ER1601DC	100	16.0	90	125	10	16.0	0.95	35
ER1601ADC	150	16.0	90	125	10	16.0	0.95	35
ER1602DC	200	16.0	90	125	10	16.0	0.95	35
ER1603DC	300	16.0	90	125	10	16.0	1.3	50
ER1604DC	400	16.0	90	125	10	16.0	1.3	50

16.0 AMPERE-SUPER FAST / TO-220

ER1600CT	50	16.0	105	125	10	8.0	0.95	35
ER1601CT	100	16.0	105	125	10	8.0	0.95	35
ER1601ACT	150	16.0	105	125	10	8.0	0.95	35
ER1602CT	200	16.0	105	125	10	8.0	0.95	35
ER1603CT	300	16.0	105	125	10	8.0	1.3	50
ER1604CT	400	16.0	105	125	10	8.0	1.3	50
ER1606CT	600	16.0	105	125	10	8.0	1.7	50

16.0 AMPERE-SUPER FAST / ITO-220

ER1600FCT	50	16.0	105	125	10	8.0	0.95	35
ER1601FCT	100	16.0	105	125	10	8.0	0.95	35
ER1601AFCT	150	16.0	105	125	10	8.0	0.95	35
ER1602FCT	200	16.0	105	125	10	8.0	0.95	35
ER1603FCT	300	16.0	105	125	10	8.0	1.3	50
ER1604FCT	400	16.0	105	125	10	8.0	1.3	50
ER1606FCT	600	16.0	105	125	10	8.0	1.7	50

16.0 AMPERE-SUPER FAST / ITO-220

ER1600F	50	16.0	105	125	10	16.0	0.95	35
ER1601F	100	16.0	105	125	10	16.0	0.95	35
ER1601AF	150	16.0	105	125	10	16.0	0.95	35
ER1602F	200	16.0	105	125	10	16.0	0.95	35
ER1603F	300	16.0	105	125	10	16.0	1.3	50
ER1604F	400	16.0	105	125	10	16.0	1.3	50

NOTE: T_{rr} Test Conditions: I_F=0.5A, I_R=1.0A, Recovery to 0.25A.



SENSITRON SEMICONDUCTOR

SUPER FAST RECTIFIERS

OPERATING AND STORAGE TEMPERATURE –65°C TO +150°C

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25°C T _A	Maximum Forward Voltage @25°C T _A		Maximum Reverse Recovery Time
	PRV	I _O @ T _A		I _{FM} (Surge)	I _R	I _{FM}	V _{FM}	T _{rr}
	V _{PK}	A _{AV}	°C	A _{PK}	μA _{dc}	V _{PK}	V _{PK}	ns

16.0 AMPERE-SUPER FAST / TO-220A

SF1601G	50	16.0	105	200	10	16.0	0.975	35
SF1602G	100	16.0	105	200	10	16.0	0.975	35
SF1603G	150	16.0	105	200	10	16.0	0.975	35
SF1604G	200	16.0	105	200	10	16.0	0.975	35
SF1605G	300	16.0	105	200	10	16.0	1.3	35
SF1606G	400	16.0	105	200	10	16.0	1.3	35

16.0 AMPERE-SUPER FAST / TO-3P

SF1601PT	50	16.0	105	200	10	16.0	0.95	35
SF1602PT	100	16.0	105	200	10	16.0	0.95	35
SF1603PT	150	16.0	105	200	10	16.0	0.95	35
SF1604PT	200	16.0	105	200	10	16.0	0.95	35
SF1605PT	300	16.0	105	200	10	16.0	1.3	35
SF1606PT	400	16.0	105	200	10	16.0	1.3	35

30.0 AMPERE-SUPER FAST / TO-3P

SF3001PT	50	16.0	100	300	10	30.0	0.95	35
SF3002PT	100	16.0	100	300	10	30.0	0.95	35
SF3003PT	150	16.0	100	300	10	30.0	0.95	35
SF3004PT	200	16.0	100	300	10	30.0	0.95	35
SF3005PT	300	16.0	100	300	10	30.0	1.3	35
SF3006PT	400	16.0	100	300	10	30.0	1.3	35

NOTE: T_{rr} Test Conditions: I_F=0.5A, I_R=1.0A, Recovery to 0.25A.