

POWER INTEGRATIONS Diodes

RoHS Compliant This product is RoHS compliant.



QSPEED™ Q-SERIES DIODES

Utilizing proprietary Qspeed technology these devices have the lowest Q_{RR} of any 300 or 600V Silicon diode. Its recovery characteristics increase efficiency, reduce EMI and eliminate snubbers. They are optimized for the lowest possible losses at operating frequencies above 80kHz. It provides a very low QRR at a reasonable forward voltage and allows designers to substantially reduce switching loss in high frequency applications.

Features:

- Low Q_{RR} , Low I_{RRM} , Low t_{RR}
- High dI/dt capable (1000A/μs)
- Soft recovery

Benefits:

- Increases efficiency
- Eliminates need for snubber circuits
- Reduces EMI filter component size & count
- Enables extremely fast switching

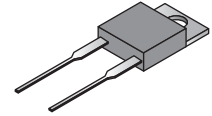
Applications:

- Power Factor Correction (PFC) Boost Diode
- Motor drive
- DC-AC Inverters
- Output Rectification

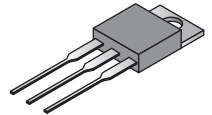
◆ Surface Mount

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Qspeed Part No.	Package	I _F Avg. (A)	V _{RRM} Max. (V)	t _{rr} Typ. (ns)	V _F Typ. (V)	Q _{RR} Typ. T _J -25°C	Q _{RR} Typ. T _J -125°C	Price Each			
									1	25	100	250
Single												
903-LQA03TC600	LQA03TC600	TO-220AC	3	600	9.3	2.3	4.8	17.5	1.66	1.31	1.15	.95
903-LQA05TC600	LQA05TC600	TO-220AC	5	600	11	2.28	6	27	2.51	2.20	1.95	1.76
903-LQA06T300	LQA06T300	TO-220AC	6	300	11.5	1.36	9	27	.91	.80	.71	.64
903-LQA08TC600	LQA08TC600	TO-220AC	8	600	11	2.3	7	36	2.69	2.35	2.09	1.88
903-LQA10T300	LQA10T300	TO-220AC	10	300	12.6	1.36	10	38	1.37	1.03	.92	.69
903-LQA16T300	LQA16T300	TO-220AC	16	300	13	1.4	12	44	1.29	1.13	1.00	.90
903-LQA30T300	LQA30T300	TO-220AC	30	300	13.7	1.45	13	53	1.71	1.50	1.33	1.20
Dual												
903-LQA12T300C	LQA12T300C	TO-220AB	6	300	11.5	1.35	9	27	1.48	1.30	1.15	1.04
903-LQA20B300C	LQA20B300C	TO-263AB	10	300	12.6	1.36	10	38	1.94	1.70	1.51	1.36
903-LQA20T300C	LQA20T300C	TO-220AB	10	300	12.6	1.36	10	38	1.90	1.52	1.14	1.06
903-LQA30A300C	LQA30A300C	TO-247AD	15	300	13	1.4	12.5	47	3.54	3.10	2.75	2.48
903-LQA32T300C	LQA32T300C	TO-220AB	16	300	13	1.3	11.5	44	1.80	1.58	1.40	1.26
903-LQA60A300C	LQA60A300C	TO-247AD	30	300	13.7	1.45	13	53	4.42	3.87	3.44	3.10



TO-220AC



TO-220AB

QSPEED™ X-SERIES DIODES

Utilizing proprietary Qspeed technology these devices have the lowest Q_{RR} of any 600V Silicon diode. Its recovery characteristics increase efficiency, reduce EMI and eliminate snubbers. They are optimized for the lowest possible losses at operating frequencies of 50kHz to 80kHz.

Features:

- Low Q_{RR} , Low I_{RRM} , Low t_{RR}
- High dI/dt capable (1000A/μs)
- Soft recovery

Benefits:

- Increases efficiency
- Eliminates need for snubber circuits
- Reduces EMI filter component size & count
- Enables extremely fast switching

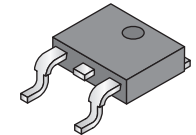
Applications:

- Power Factor Correction (PFC) Boost Diode
- Motor drive circuits
- DC-AC Inverters

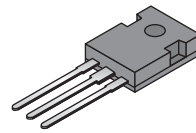
◆ Surface Mount

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Qspeed Part No.	Package	I _F Avg. (A)	V _{RRM} Max. (V)	t _{rr} Typ. (ns)	V _F Typ. (V)	Q _{RR} Typ. T _J -25°C	Q _{RR} Typ. T _J -125°C	Price Each			
									1	25	100	250
Single												
903-LXA03T600	LXA03T600	TO-220AC	3	600	20	2.1	21	43	.91	.80	.71	.64
903-LXA03B600	LXA03B600	TO-263AB	3	600	20	2.1	21	43	1.19	1.05	.938	.84
903-LXA04T600	LXA04T600	TO-220AC	4	600	18.5	2.1	21	50	1.11	.97	.866	.78
903-LXA04B600	LXA04B600	TO-263AB	4	600	18.5	2.1	21	50	1.14	1.00	.89	.80
903-LXA06T600	LXA06T600	TO-220AC	6	600	23	2.0	30	71	1.23	1.08	.96	.86
903-LXA06B600	LXA06B600	TO-263AB	6	600	23	2.0	30	71	1.31	1.15	1.02	.92
903-LXA08T600	LXA08T600	TO-220AC	8	600	21.5	2.1	31	82	1.37	1.20	1.07	.96
903-LXA08B600	LXA08B600	TO-263AB	8	600	21.5	2.1	31	82	1.49	1.30	1.16	1.04
903-LXA08FP600	LXA08FP600	TO-220FP	8	600	21.5	2.1	31	82	2.17	1.90	1.69	1.52
903-LXA10T600	LXA10T600	TO-220AC	10	600	23	2.1	36	94	2.05	1.80	1.60	1.44
903-LXA10FP600	LXA10FP600	TO-220FP	10	600	23	2.1	36	94	2.63	2.30	2.03	1.84
903-LXA15T600	LXA15T600	TO-220AC	15	600	25	2.2	43	120	1.97	1.73	1.53	1.38
903-LXA20T600	LXA20T600	TO-220AC	20	600	26.5	2.3	51	140	2.41	2.05	1.52	1.42
Dual												
903-LXA08T600C	LXA08T600C	TO-220AB	4	600	18.5	2.1	21	50	2.00	1.75	1.56	1.40
903-LXA12T600C	LXA12T600C	TO-220AB	6	600	23	2.1	30	71	2.51	2.20	1.95	1.76
903-LXA16T600C	LXA16T600C	TO-220AB	8	600	21.5	2.1	31	82	2.26	1.98	1.76	1.58



TO-263AB



TO-220FP

QSPEED™ H-SERIES DIODES

Utilizing proprietary Qspeed technology these devices have the lowest Q_{RR} of any 600V Silicon diode. Its recovery characteristics increase efficiency, reduce EMI and eliminate snubbers.

Features:

- Low Q_{RR} , Low I_{RRM} , Low t_{RR}
- High dI/dt capable (1000A/μs)
- Soft recovery

Benefits:

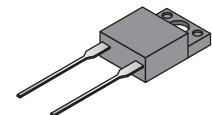
- Increases efficiency
- Eliminates need for snubber circuits
- Reduces EMI filter component size & count
- Enables extremely fast switching

Applications:

- Power Factor Correction (PFC) Boost Diode
- Motor drive circuits
- DC-AC Inverters

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Qspeed Part No.	Package	I _F Avg. (A)	V _{RRM} Max. (V)	t _{rr} Typ. (ns)	V _F Typ. (V)	Q _{RR} Typ. T _J -25°C	Q _{RR} Typ. T _J -125°C	Price Each			
									1	25	100	250
Single												
903-QH03TZ600	QH03TZ600	TO-220AC	3	600	9.8	2.1	5.8	14.8	1.66	1.45	1.29	1.16
903-QH05TZ600	QH05TZ600	TO-220AC	5	600	10	2.2	6.5	18.9	2.14	1.88	1.67	1.50
903-QH08TZ600	QH08TZ600	TO-220AC	8	600	11.1	2.2	8	25.5	2.46	2.15	1.91	1.72
903-QH12TZ600	QH12TZ600	TO-220AC	12	600	11.6	2.3	9.2	30	2.97	2.60	2.31	2.08



TO-220FP