







Electrical Specifications

TYPE	Part Number						I_T		V_{DRM} & V_{RRM}	I_{GT}		I_{DRM} & I_{RRM}			V_{TM}
	Isolated			Non-Isolated											
							Maximum On-State Current (1) (14)	Repetitive Peak Off-State Forward and Reverse Voltage	DC Gate Trigger Current $V_D = 12VDC$ $R_L = 30\Omega$ (4)	Peak Off-State Forward and Reverse Current at V_{DRM} and V_{RRM} (13)			Peak On-State Voltage at Max Rated RMS Current $T_C = 25^\circ C$ (3)		
	TO 220AB	TO 218X	TO 218AC	TO 220AB	TO 218X	TO 218AC	Amps	Volts	mAmps	mAmps			Volts		
See "Package Dimensions" section for variations.						$I_{T(RMS)}$	$I_{T(AV)}$	MIN	MIN	MAX	$T_C = 25^\circ C$	$T_C = 100^\circ C$	$T_C = 125^\circ C$	MAX	
20 Amps	S0520L					20	12.8	50	1	30	.01	0.5	1.0	1.6	
	S1020L					20	12.8	100	1	30	.01	0.5	1.0	1.6	
	S2020L					20	12.8	200	1	30	.01	0.5	1.0	1.6	
	S4020L					20	12.8	400	1	30	.01	0.5	1.0	1.6	
	S6020L					20	12.8	600	1	30	.01	0.5	1.0	1.6	
	S8020L					20	12.8	800	1	30	.02	1.0	2.0	1.6	
25 Amps	S0525L			S0525R		25	16	50	1	35	.01	1.0	2.0	1.6	
	S1025L			S1025R		25	16	100	1	35	.01	1.0	2.0	1.6	
	S2025L			S2025R		25	16	200	1	35	.01	1.0	2.0	1.6	
	S4025L			S4025R		25	16	400	1	35	.01	1.0	2.0	1.6	
	S6025L			S6025R		25	16	600	1	35	.01	1.0	2.0	1.6	
	S8025L			S8025R		25	16	800	1	35	.02	1.5	3.0	1.6	
35 Amps		S0535J	S0535K			35	22	50	5	40	.01	1.0	2.0	1.8	
		S1035J	S1035K			35	22	100	5	40	.01	1.0	2.0	1.8	
		S2035J	S2035K			35	22	200	5	40	.01	1.0	2.0	1.8	
		S4035J	S4035K			35	22	400	5	40	.01	1.0	2.0	1.8	
		S6035J	S6035K			35	22	600	5	40	.01	1.0	2.0	1.8	
		S8035J	S8035K			35	22	800	5	40	.02	1.5	3.0	1.8	
40 Amps				S0540R		40	25	50	5	40	.01	1.0	2.0	1.8	
				S1040R		40	25	100	5	40	.01	1.0	2.0	1.8	
				S2040R		40	25	200	5	40	.01	1.0	2.0	1.8	
				S4040R		40	25	400	5	40	.01	1.0	2.0	1.8	
				S6040R		40	25	600	5	40	.01	1.0	2.0	1.8	
				S8040R		40	25	800	5	40	.02	1.5	3.0	1.8	
55 Amps				S0555R	S0555W	S0555M	55	35	50	5	40	.01	1.0	2.0	1.8
				S1055R	S1055W	S1055M	55	35	100	5	40	.01	1.0	2.0	1.8
				S2055R	S2055W	S2055M	55	35	200	5	40	.01	1.0	2.0	1.8
				S4055R	S4055W	S4055M	55	35	400	5	40	.01	1.0	2.0	1.8
				S6055R	S6055W	S6055M	55	35	600	5	40	.01	1.0	2.0	1.8
				S8055R	S8055W	S8055M	55	35	800	5	40	.02	1.5	3.0	1.8
65 Amps		S0565J	S0565K			65	41	50	5	50	.02	1.5	3.0	1.8	
		S1065J	S1065K			65	41	100	5	50	.02	1.5	3.0	1.8	
		S2065J	S2065K			65	41	200	5	50	.02	1.5	3.0	1.8	
		S4065J	S4065K			65	41	400	5	50	.02	1.5	3.0	1.8	
		S6065J	S6065K			65	41	600	5	50	.02	1.5	3.0	1.8	
		S8065J	S8065K			65	41	800	5	50	.02	2.0	5.0	1.8	
70 Amps				S0570W		70	45	50	5	50	.02	1.5	3.0	1.8	
				S1070W		70	45	100	5	50	.02	1.5	3.0	1.8	
				S2070W		70	45	200	5	50	.02	1.5	3.0	1.8	
				S4070W		70	45	400	5	50	.02	1.5	3.0	1.8	
				S6070W		70	45	600	5	50	.02	1.5	3.0	1.8	
				S8070W		70	45	800	5	50	.02	2.0	5.0	1.8	

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V_{GT}		I_H	I_{GM}	P_{GM}	$P_{G(AV)}$	I_{TSM}		dv/dt		I^2t	di/dt	t_{gt}	t_q
DC Gate Trigger Voltage $V_D = 12VDC$ $R_L = 30\Omega$ (8)		DC Holding Current Gate Open (5) (12)	Peak Gate Current (11)	Peak Gate Power Dissipation (11)	Average Gate Power Dissipation	Peak One Cycle Surge Forward Current (6) (10) (15)		Critical Rate-of-Applied Forward Voltage		RMS Surge (Non-Repetitive) On-State Current for a Period of 8.3 msec for Fusing	Maximum Rate-of-Change of On-State Current $I_{GT} = 150mA$ with 0.1 μS Rise Time	Gate Controlled Turn-On Time Gate Pulse = 150mA Min. Width = 15 μS with Rise Time $\leq 0.1\mu S$ (7)	Circuit Commutated Turn-Off Time (9) (10)
Volts						Amps		Volts/ μSec					
$T_C = 25^\circ C$	$T_C = 125^\circ C$	mAmps	Amps	Watts	Watts	60 Hz	50 Hz	$T_C = 100^\circ C$	$T_C = 125^\circ C$	Amps ² Sec	Amps/ μSec	μSec	μSec
MAX	MIN	MAX						MIN	MIN			TYP	MAX
1.5	0.2	40	3.0	30	0.6	300	255	450	350	374	125	2.0	35
1.5	0.2	40	3.0	30	0.6	300	255	450	350	374	125	2.0	35
1.5	0.2	40	3.0	30	0.6	300	255	450	350	374	125	2.0	35
1.5	0.2	40	3.0	30	0.6	300	255	450	350	374	125	2.0	35
1.5	0.2	40	3.0	30	0.6	300	255	425	325	374	125	2.0	35
1.5	0.2	40	3.0	30	0.6	300	255	400	300	374	125	2.0	35
1.5	0.2	50	3.5	35	0.8	350	300	450	350	510	150	2.0	35
1.5	0.2	50	3.5	35	0.8	350	300	450	350	510	150	2.0	35
1.5	0.2	50	3.5	35	0.8	350	300	450	350	510	150	2.0	35
1.5	0.2	50	3.5	35	0.8	350	300	450	350	510	150	2.0	35
1.5	0.2	50	3.5	35	0.8	350	300	425	325	510	150	2.0	35
1.5	0.2	50	3.5	35	0.8	350	300	400	300	510	150	2.0	35
1.5	0.2	50	3.5	35	0.8	500	425	450	350	1035	150	2.0	35
1.5	0.2	50	3.5	35	0.8	500	425	450	350	1035	150	2.0	35
1.5	0.2	50	3.5	35	0.8	500	425	450	350	1035	150	2.0	35
1.5	0.2	50	3.5	35	0.8	500	425	450	350	1035	150	2.0	35
1.5	0.2	50	3.5	35	0.8	500	425	425	325	1035	150	2.0	35
1.5	0.2	50	3.5	35	0.8	500	425	400	300	1035	150	2.0	35
1.5	0.2	60	3.5	35	0.8	520	430	650	550	1122	175	2.5	35
1.5	0.2	60	3.5	35	0.8	520	430	650	550	1122	175	2.5	35
1.5	0.2	60	3.5	35	0.8	520	430	650	550	1122	175	2.5	35
1.5	0.2	60	3.5	35	0.8	520	430	650	550	1122	175	2.5	35
1.5	0.2	60	3.5	35	0.8	520	430	600	500	1122	175	2.5	35
1.5	0.2	60	3.5	35	0.8	520	430	500	475	1122	175	2.5	35
1.5	0.2	60	4.0	40	0.8	650	550	650	550	1750	175	2.5	35
1.5	0.2	60	4.0	40	0.8	650	550	650	550	1750	175	2.5	35
1.5	0.2	60	4.0	40	0.8	650	550	650	550	1750	175	2.5	35
1.5	0.2	60	4.0	40	0.8	650	550	650	550	1750	175	2.5	35
1.5	0.2	60	4.0	40	0.8	650	550	600	500	1750	175	2.5	35
1.5	0.2	60	4.0	40	0.8	650	550	500	475	1750	175	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	650	550	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	650	550	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	650	550	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	650	550	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	600	500	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	500	475	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	650	550	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	650	550	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	650	550	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	600	500	3745	200	2.5	35
2.0	0.2	80	5.0	50	1.0	950	800	500	475	3745	200	2.5	35