



Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (412) 925-7272
 Powerex, Europe, S.A. 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

DARLINGTON TRANSISTOR MODULES (Continued)

Major Ratings and Characteristics at $T_C = 25^\circ\text{C}$ (T_J Maximum = 150°C)

MAXIMUM RATINGS							ELECTRICAL CHARACTERISTICS				
Transistors							Diodes		Transistors		
Type	V_{CE0} (SUS) Volts	V_{CEV} Volts	Continuous I_C Amperes	Continuous I_B Amperes	P_T Watts	V_{RMS} Isolation Volts	I_{FM} Amperes	I_{FSM} Amperes	Test Conditions		
									I_C Amperes	V_{CE} Volts	h_{FE} Minimum
Dual Darlington Transistor Modules											
KD7245A1	450	600	15	0.9	100	2500	15	150	15	5	100
KD721KA1	850	1000	15	1	150	2500	15	150	15	5	100
KD7212A1	950	1200	15	1	150	2500	15	150	15	5	75
KD724502	450	600	20	1	160	2500	20	200	20	5	100
KD224503*	450	600	30	1.8	250	2500	30	300	30	5	100
KD524503	450	600	30	1.8	250	2500	30	300	30	5	100
KD221K03	850	1000	30	2	300	2500	30	300	30	5	100
KD221203A7	950	1200	30	2	300	2500	30	300	30	5	75
KD221404	1100	1400	40	4	400	3000	40	400	40	5	100
KD224505*	450	600	50	3	310	2500	50	500	50	5	100
KD524505	450	600	50	3	310	2500	50	500	50	5	100
KD221K05	850	1000	50	3	400	2500	50	500	50	5	100
KD221205A7	950	1200	50	3	400	2500	50	500	50	5	75
KD224575*	450	600	75	4.5	350	2500	75	750	75	5	100
KD225575	550	600	75	4.5	350	2500	75	750	75	5	75
KD524575	450	600	75	4.5	350	2500	75	750	75	5	100
KD221K75	850	1000	75	4	500	2500	75	750	75	5	100
KD221275A7	950	1200	75	4	500	2500	75	750	75	5	75
KD321408	1100	1400	80	8	800	3000	80	800	80	5	100
QM100DY-HK	450	600	100	6	620	2500	100	1000	100	5	100
QM100DY-H1K	550	600	100	6	620	2500	100	1000	100	5	75
QM100DY-2HK	850	1000	100	5	800	2500	100	1000	100	5	100
QM100DY-24K	950	1200	100	5	800	2500	100	1000	100	5	75
QM150DY-HK	450	600	150	9	690	2500	150	1500	150	5	100
QM150DY-H1K	550	600	150	9	690	2500	150	1500	150	5	75
QM150DY-2HK	850	1000	150	8	1000	2500	150	1500	150	5	100
QM150DY-24K	950	1200	150	8	1000	2500	150	1500	150	5	75
KD421415	1100	1400	150	16	1500	3000	150	1500	150	5	100
KD424520	450	600	200	12	1250	2500	200	2000	200	2	75
KD621K20	850	1000	200	10	1560	2500	200	2000	200	5	100
KD621220	950	1200	200	10	1560	2500	200	2000	200	5	75
KD621K30	850	1000	300	16	1980	2500	300	3000	300	5	100
KD621230	950	1200	300	16	1980	2500	300	3000	300	5	75

* Package with Barrier also Available

① Per Half Module.

									THERMAL AND MECHANICAL CHARACTERISTICS					
						Diodes		Interface Per Module	Transistors	Diodes	Weight	Outline Drawings		
Test Conditions			Resistive Load Switching Times											
I _C Amperes	I _B Amperes	V _{CE} (SAT) Volts	t _{on} μs	t _s μs	t _f μs	I _{FM} Amperes	V _{FM} Volts	R _{θCS} ① °C/W	R _{θJC} °C/W	R _{θJC} °C/W	Grams	Number	Page	
15	0.3	2	1.5	8	3	15	1.5	0.25	1.2	2.5	75	32	42	
15	0.3	2.5	2.5	15	3	15	1.5	0.25	0.8	1.2	155	33	42	
15	0.3	3	2.5	15	3	15	1.8	0.25	0.8	1.2	155	33	42	
20	0.28	2	1.5	12	2	20	1.5	0.25	0.8	2.2	75	32	42	
30	0.4	2	1.5	12	3	30	1.85	0.15	0.5	2	200	35	43	
30	0.4	2	1.5	12	3	30	1.85	0.15	0.5	2.0	200	36	43	
30	0.5	2.5	2.5	15	3	30	1.5	0.15	0.4	1.5	210	34	43	
30	0.6	3	2.5	15	3	30	1.5	0.15	0.4	1.5	210	34	43	
40	0.8	3	3	20	3	40	1.8	0.15	0.31	1.2	250	37	44	
50	0.65	2	1.5	12	3	50	1.75	0.15	0.4	1.3	200	35	43	
50	0.65	2	1.5	12	3	50	1.75	0.15	0.4	1.3	200	36	43	
50	1	2.5	2.5	15	3	50	1.8	0.15	0.31	1.2	210	34	43	
50	1	3	2.5	15	3	50	1.8	0.15	0.31	1.2	210	34	43	
75	1	2	2.5	12	3	75	1.85	0.15	0.35	1.3	210	35	43	
75	1.5	2	2.5	12	3	75	1.85	0.15	0.35	1.3	210	35	43	
75	1	2	2.5	12	3	75	1.85	0.15	0.35	1.3	200	36	43	
75	1.5	2.5	2.5	15	3	75	1.8	0.13	0.25	1.2	250	38	44	
75	1.5	3	2.5	15	3	75	1.8	0.13	0.25	1.2	250	38	44	
80	1.6	3	3	20	3	80	1.8	0.075	0.155	0.6	470	39	44	
100	1.3	2	2	12	3	100	1.5	0.1	0.2	0.65	420	40	45	
100	2	2	2	12	3	100	1.75	0.1	0.2	0.6	400	40	45	
100	2	2.5	3	15	3	100	1.8	0.075	0.155	0.65	470	41	45	
100	2	3	3	15	3	100	1.8	0.075	0.155	0.65	470	41	45	
150	2	2	2.5	12	3	150	1.85	0.1	0.18	0.6	420	40	45	
150	3	2	2.5	12	3	150	1.85	0.1	0.18	0.6	400	40	45	
150	3	2.5	3	15	3	150	1.8	0.075	0.125	0.6	470	41	45	
150	3	3	3	15	3	150	1.8	0.075	0.125	0.6	470	41	45	
150	3	3	3	20	3	150	1.8	—	0.083	0.4	650	42	45	
200	2.6	2	2	12	3	200	1.75	0.4	0.1	0.33	470	43	46	
200	4	2.5	3	15	3	200	1.8	—	0.08	0.35	870	44	46	
200	4	3	3	15	3	200	1.8	—	0.08	0.35	870	44	46	
300	6	2.5	3	15	3	300	1.8	—	0.063	0.3	1200	45	46	
300	6	3	3	15	3	300	1.8	—	0.063	0.3	1200	45	46	