

## DRSSTC 2 PARTS LIST

Date: June 28, 2004  
Rev: Final Release

Item	Ref Des	Part No.	Description	Distributor	Qty	Price	Total
1	C1,C2	41L4471	Capacitor, 4.7uF, 400V, Polyprop	ALLIED	2	\$ 4.62	\$ 9.24
2	C3,C4		Capacitor, 0.47uF, 3kV, Ceramic		2		\$ -
3	C101	42L3332	Capacitor, 0.33uF, 2kV, Polyprop	ALLIED	12	\$ 4.80	\$ 57.60
4	R1-R4	5.1W-2-ND	Resistor, 5.1 ohms, 2W	DIGIKEY	4	\$ 0.23	\$ 0.92
5	Q1-Q4	HGT1N40N60A4D	IGBT, 600V, ISOPAK	FAIRCHILD	4		\$ -
6	CR1-CR4	1N5819DICT-ND	Diode, Schottky, 40V, 1A	DIGIKEY	4	\$ 0.39	\$ 1.56
7	SG1	SGSP 500 NI-63	Spark Gap, 500V	VICTOREEN	1		\$ -
8	VR1,VR2,VR4,VR5 VR7,VR8,VR10,VR11	1N4752ADICT-ND	Diode, Zener, 33V, 1W	DIGIKEY	8	\$ 0.36	\$ 2.88
9	VR3,VR6,VR9,VR12	1.5KE33CADICT-ND	TVS, 1.5kW, 33V, Bidirectional	DIGIKEY	4	\$ 0.74	\$ 2.96
10	VR13-VR20	15KP220CA	TVS, 15kW, 220V, Bidirectional	PROTEK	8		\$ -
11	T1,T2	5978006401	Ferrite Core, Type 78 Material	FAIR-RITE	2		\$ -

Item	Ref Des	Part No.	Description	Distributor	Qty	Price	Total
1	C1,C2,C8-C11,C14	BC1101CT-ND	Capacitor, 0.1uF, 50V, Ceramic	DIGIKEY	7	\$ 0.17	\$ 1.19
2	C3	BC1098CT-ND	Capacitor, 0.033uF, 50V, Ceramic	DIGIKEY	1	\$ 0.24	\$ 0.24
3	C4-C7,C12,C13	399-1360-ND	Capacitor, Tantalum, 10uF, 35V	DIGIKEY	6	\$ 1.28	\$ 7.68
4	C15	BC1095CT-ND	Capacitor, 0.01uF, 50V, Ceramic	DIGIKEY	1	\$ 0.09	\$ 0.09
5	R1	10.0KXBK-ND	Resistor, 10.0k, 1/4W, 1%	DIGIKEY	1	\$ 0.11	\$ 0.11
6	R2	2.2KQBK-ND	Resistor, 2.2k, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
7	R3	3296W-103-ND	Potentiometer, 10k, 10 Turn	DIGIKEY	1	\$ 2.50	\$ 2.50
8	R4	3296W-105-ND	Potentiometer, 1Meg, 10 Turn	DIGIKEY	1	\$ 2.50	\$ 2.50
9	R5	196KXBK-ND	Resistor, 196k, 1/4W, 1%	DIGIKEY	1	\$ 0.11	\$ 0.11
10	R6	10QBK-ND	Resistor, 10 ohm, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
11	R7	See Note 1					\$ -
12	R8	1.0KQBK-ND	Resistor, 1.0k, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
13	CR1,CR2	1N60 or 1N90	Diode, Germanium		2		\$ -
14	CR3,CR4	1N4002DICT-ND	Diode, Rectifier, 100V, 1A	DIGIKEY	2	\$ 0.13	\$ 0.26
15	CR5-CR8	1N5819DICT-ND	Diode, Schottky, 40V, 1A	DIGIKEY	4	\$ 0.39	\$ 1.56
16	U1	See Note 1	SN74HC14N Hex Inverter Schmidt Trig	DIGIKEY	1	\$ 0.44	\$ 0.44
17	U2	LM555CNNS-ND	555 Timer	DIGIKEY	1	\$ 0.68	\$ 0.68
18	U3,U4	296-13689-5-ND	Gate Driver w/ ENA 9A Non-Inverting	DIGIKEY	2	\$ 2.48	\$ 4.96
19	U5,U6	296-13686-5-ND	Gate Driver w/ ENA 9A Inverting	DIGIKEY	2	\$ 2.48	\$ 4.96
20	T1	5978006401	Ferrite Core, Type 78 Material	FAIR-RITE	1		\$ -

Item	Ref Des	Part No.	Description	Distributor	Qty	Price	Total
1	C51,C52	P5172-ND	Capacitor, Electrolytic, 4700uF, 35V	DIGIKEY	2	\$ 3.76	\$ 7.52
2	C53,C55,C58,C60	BC1101CT-ND	Capacitor, 0.1uF, 50V, Ceramic	DIGIKEY	4	\$ 0.17	\$ 0.68
3	C54,C59	399-1360-ND	Capacitor, Tantalum, 10uF, 35V	DIGIKEY	2	\$ 1.28	\$ 2.56
4	R51	470QBK-ND	Resistor, 470 ohm, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
5	R52	1.5KQBK-ND	Resistor, 1.5k, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
6	CR51-CR54	1N4002DICT-ND	Diode, Rectifier, 100V, 1A	DIGIKEY	4	\$ 0.13	\$ 0.52
7	VR51	1.5KE7.5CADICT-ND	Transient Voltage Suppressor, 7.5V	DIGIKEY	1	\$ 0.74	\$ 0.74
8	VR52	1.5KE18CADICT-ND	Transient Voltage Suppressor, 18V	DIGIKEY	1	\$ 0.74	\$ 0.74
9	D51,D52	P405-ND	LED, Red, High Brightness	DIGIKEY	2	\$ 0.38	\$ 0.76
10	U51	LM340T-5.0-ND	Voltage Regulator, 5V, TO-220	DIGIKEY	1	\$ 0.99	\$ 0.99
11	U52	LM340T-15-ND	Voltage Regulator, 15V, TO-220	DIGIKEY	1	\$ 0.99	\$ 0.99

Item	Ref Des	Part No.	Description	Distributor	Qty	Price	Total
1	B1		9V Battery		1		\$ -
2	C1	BC1101CT-ND	Capacitor, 0.1uF, 50V, Ceramic	DIGIKEY	1	\$ 0.17	\$ 0.17
3	C2	BC1098CT-ND	Capacitor, 0.033uF, 50V, Ceramic	DIGIKEY	1	\$ 0.24	\$ 0.24
4	C3	BC1095CT-ND	Capacitor, 0.01uF, 50V, Ceramic	DIGIKEY	1	\$ 0.09	\$ 0.09
5	R1	1.0KQBK-ND	Resistor, 1.0k, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
6	R2	2.2KQBK-ND	Resistor, 2.2k, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
7	R3	10QBK-ND	Resistor, 10 ohm, 1/4W, 5%	DIGIKEY	1	\$ 0.06	\$ 0.06
8	R4	196KXBK-ND	Resistor, 196k, 1/4W, 1%	DIGIKEY	1	\$ 0.11	\$ 0.11
9	R5	3296W-103-ND	Potentiometer, 10k, 10 Turn	DIGIKEY	1	\$ 2.50	\$ 2.50
10	R6	3296W-105-ND	Potentiometer, 1Meg, 10 Turn	DIGIKEY	1	\$ 2.50	\$ 2.50
11	CR100,CR101	1N4002DICT-ND	Diode, Rectifier, 100V, 1A	DIGIKEY	2	\$ 0.13	\$ 0.26
12	D1	P405-ND	LED, Red, High Brightness	DIGIKEY	1	\$ 0.38	\$ 0.38
13	VR1	1.5K10CADICT-ND	Transient Voltage Suppressor, 10V	DIGIKEY	1	\$ 0.74	\$ 0.74
14	VR2	1.5K7.5CADICT-ND	Transient Voltage Suppressor, 7.5V	DIGIKEY	1	\$ 0.74	\$ 0.74
15	SW1		SPST Switch (or similar)				\$ -