## imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SPECIFICATION CONTROL	DRAWING		55A0814		
TITLE WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, NORMAL WEIGHT, GENERAL PURPOSE, 600 VOLT		Date 1-28-08	Revision M		
This specification sheet forms a part of the latest issue of Raychem Specification 55A.					
CONDUCTOR - SILVER-COATED HIGH STRENGTH COPPER ALLOY	PRIMARY INSULATION -	RADIATION-CROSSLINK MODIFIED ETFE Primary insulation shall be contrasting pigmentation to of the jacket.	e of a		

TABLE I. CONSTRUCTION DETAILS							
		DIAMETER OF		FINISHED WIRE			
PART NUMBER $\underline{1}/$	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	STRANDED CONDUCTOR (in.)		MAXIMUM RESISTANCE AT 20°C	DIAMETER (in.)	MAXIMUM WEIGHT
			MINIMUM	MAXIMUM	(ohms/1000 ft.)	()	(lbs/1000 ft.)
55A0814-26-*	26	19 x 38	.018	.020	44.8	.040 ± .002	1.7
55A0814-24-*	24	19 x 36	.023	.025	28.4	.045 ± .002	2.3
55A0814-22-*	22	19 x 34	.029	.031	17.5	.050 ± .002	3.3
55A0814-20-*	20	19 x 32	.037	.039	10.7	.058 ± .002	4.8
55A0814-18-*	18	19 x 30	.046	.050	6.8	.070 ± .003	7.5

TABLE II. PERFORMANCE DETAILS				
	BEND TESTING			
PART NUMBER 1/	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND
55A0814-26-*	.375	1.00	.500	3.00
55A0814-24-*	.500	1.00	.750	3.00
55A0814-22-*	.500	1.00	1.00	3.00
55A0814-20-*	.500	1.00	1.50	4.00
55A0814-18-*	.750	1.50	2.00	4.00

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.				
1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER. AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.				
	The TE logo, Tyco Electronics and Raychem are trademarks.		Raychem Wire & Cable 501 Oakside Avenue Redwood City, CA 94063-3800 Phone: 1-800-227-8816 Fax: 1-650-361-6297	
Page 1 of 2	DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL.	₹ <sub>Tvco</sub>		
	THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.	Electronics		

JACKET - RADIATION-CROSSLINKED, MODIFIED ETFE

Revision

Μ

SCD Number

## WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C Maximum continuous conductor temperature VOLTAGE RATING: 600 volts (rms) at sea level ACCELERATED AGING (CROSSLINKING PROOF): 300 ± 3°C for 7 hours BLOCKING: 230 ± 3°C for 24 hours COLOR: White preferred CONCENTRICITY: 70% (minimum) FLAMMABILITY: Procedure 1, 3 seconds (maximum); 3 inches (maximum); no flaming of facial tissue HUMIDITY RESISTANCE: Insulation Resistance, 5000 megohms for 1000 ft. (minimum) IDENTIFICATION, COLOR STRIPING AND BAND DURABILITY: 125 cycles (250 strokes) (minimum), 500 g weight IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown INSULATION ELONGATION AND TENSILE STRENGTH: Tensile strength, 5000 lbf/in<sup>2</sup> (minimum) for primary insulation 5000 lbf/in<sup>2</sup> (minimum) for total insulation (primary insulation and jacket) Elongation, 125% (minimum) for primary insulation 75% (minimum) for total insulation (primary insulation and jacket) **INSULATION FLAWS:** Primary Insulation, Spark Test, 1.5 kV (rms) at 60 Hz 4.2 kV (rms) at 3 kHz Impulse DielectricTest, 6.0 kV (peak) Finished Wire, Spark Test, 5.7 kV (rms) at 3 kHz Impulse Dielectric Test, 8.0 kV (peak) INSULATION RESISTANCE: 5000 megohms for 1000 ft. (minimum) INSULATION THICKNESS: 0.003 in. (minimum) for primary insulation 0.004 in. (minimum) for outer jacket 0.009 in. (minimum) for total insulation LIFE CYCLE: 230 ± 3°C for 500 hours LOW TEMPERATURE-COLD BEND: -65 ± 3°C for 4 hours SHRINKAGE: 230 ± 3°C, for 6 hours, 0.125 in. (maximum) in 12 inches SMOKE TEST: 250 ± 5°C, no visible smoke SOLDERABILITY: Per MIL-STD-202, Method 208, except without steam aging SURFACE RESISTANCE: 500 megohms-in. (minimum), both readings THERMAL SHOCK RESISTANCE: 200 ± 3°C. 0.060 in. (maximum) VOLTAGE WITHSTAND TEST (Post Environmental): 2500 volts (rms), 60 Hz WICKING: 2.25 in. (maximum) WRAP TEST: 313 ± 3°C for 2 hours PART NUMBER:

The "\*" in the part numbers on page 1 shall be replaced by a color code designator. <u>1</u>/ Example: AWG 22, white; 55A0814-22-9 AWG 22, white with a black stripe; 55A0814-22-90

1/ See footer section on page 1