



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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APPLICABLE STANDARD		SPECIFICATIONS			
ITEM	TEST METHOD	REQUIREMENTS		QT	AT
CONSTRUCTION					
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.		X	X
MARKING	CONFIRMED VISUALLY.			X	X
ELECTRIC CHARACTERISTICS					
CONTACT RESISTANCE	100 m A (DC OR 1000 Hz).	50 mΩ MAX.		X	—
INSULATION RESISTANCE	100 V DC	500 MΩ MAX		X	—
VOLTAGE PROOF	150 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN		X	—
MECHANICAL CHARACTERISTICS					
INSERTION AND WITHDRAWAL FORCES	MEASURED BY APPLICABLE CONNECTOR.	SIGNAL SIGNAL	INSERTION FORCE (N)MAX	WITHDRAWAL FORCE (N)MIN	X —
		1.0	19.8	1.5	
		1.4	21.3	2.1	
		2.0	23.4	2.6	
		3.0	27.0	3.4	
		3.2	27.6	3.6	
		3.6	29.0	4.0	
		4.0	30.6	4.2	
		5.0	34.2	5.0	
		6.0	38.0	6.0	
		8.0	45.0	7.4	
MECHANICAL OPERATION					
	50 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 50 mΩ MAX.		X	—
	TEMPERATURE	② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.		X	—
VIBRATION	0.75 mm, AT 2 h, FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs.		X	—
SHOCK	490 m/s ² DURATION OF PULSE 11ms AT 3 TIMES FOR 3 DIRECTIONS.	② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.		X	—
ENVIRONMENTAL CHARACTERISTICS					
RAPID CHANGE OF TEMPERATURE	TEMPERATURE-65 → 15 TO 35 → 125 → 15 TO 35°C TIME 30 → 10 TO 15 → 30 → 10 TO 15 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.		X	—
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.		X	—
CORROSION SALT MIST	EXPOSED IN 5% SALT WATER SPRAY FOR 48 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.		X	—
SULPHUR DIOXIDE	EXPOSED IN 10 PPM FOR 96 h. (TEST STANDARD: JEIDA-39)	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.		X	—
HEAT RESISTANCE OF SOLDERING	[RECOMMENDED TEMPERATURE PROFILE] 『SOLDERING AREA』 MAX250°C, 220°C FOR 60 SECONDS MAX. 『PREHEATING AREA』 150 TO 180°C 90~120 SECONDS. MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION. [RECOMMENDED MANUAL SOLDERING CONDITION] SOLDERING IRON TEMPERATURE 350°C SOLDERING TIME : WITHIN 3 SECONDS.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.		X	—
REMARKS					
NOTE1:INCLUDING THE TEMPERATURE RISE BY CURRENT.					
NOTE2:STORAGES IS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS.					
UNLESS OTHERWISE SPECIFIED, REFER TO JIS C 5402.					
APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPPLY.					
COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE	
A					
		APPROVED M.O.NAKAMURA		06.01.30	
		CHECKED T.S.MIYAZAKI		06.01.30	
		DESIGNED Y.H.MICHIDA		06.01.30	
		DRAWN H.K.MURAKAMI		06.01.27	
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC4-160394-09		
SPECIFICATION SHEET		PART NO.	DF12E (3. 0) -*DP-0. 5V (81)		▲ 1/1
HIROSE ELECTRIC CO., LTD.		CODE NO.	CL537		