




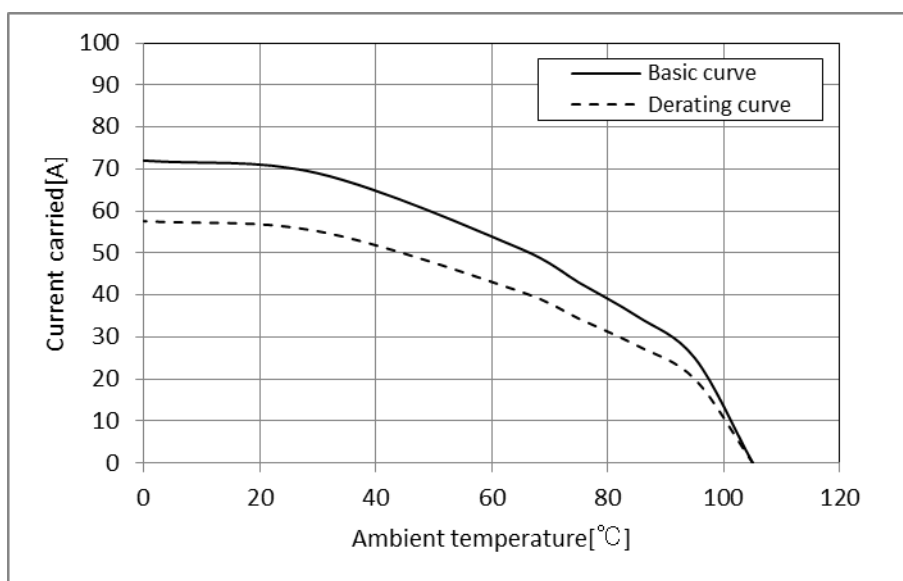


Applicable standard					
Rating	Operating temperature range	-55°C to + 105°C (Note 1)	Storage temperature range	-10°C to + 60°C (Note 3)	
	Operating humidity range	20% to 80% (Note 2)	Storage humidity range	40% to 70% (Note 3)	
	Applicable connector	DF60FR-3S-10. 16C DF60-*SCFA	Current(*1) Voltage	42 A 1000V AC/DC	
	Rated voltage	Rated current		Overvoltage category	IP- degree
UL	600V AC/DC	55A (At ambient temp. 25°C) (Note 5)		—	—
C-UL	600V AC/DC	See above (*1) (Temp. rise up 30°C MAX)		—	—
TÜV	600V AC/DC	See above (*1)		III	IP20
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 Millivolt level method		DC6V MAX, 1A		2mΩ MAX.	X —
Insulation resistance		1000V DC.		1000MΩ MIN.	X —
Voltage proof		3000V AC for 1 min.		No flashover or breakdown.	X —
Mechanical characteristics					
Mechanical operation		30 times insertions and extractions.		① Contact resistance: 2mΩ MAX. ② No damage, crack or looseness of parts.	X —
Vibration		Frequency 10 to 500 Hz, total amplitude 1.5 mm, acceleration of 98 m/s <sup>2</sup> , at 2 h, for 3 directions.		① No electrical discontinuity of 1μs. ② No damage, crack or looseness of parts.	X —
Shock		490 m/s <sup>2</sup> duration of pulse 11 ms at 3 times for 3 directions.		① No electrical discontinuity of 1μs. ② No damage, crack or looseness of parts.	X —
Environmental characteristics					
Damp heat (Steady state)		Exposed at 40 ± 2 °C, 90 to 95 %, 96 h.		① Contact resistance: 2mΩ MAX. ② Insulation resistance: 1000MΩ MIN. ③ No damage, crack or looseness of parts.	X —
Rapid change of temperature		Temperature -55°C → +85°C Time 30min → 30min Under 25 cycles. (The transferring time of the tank is 2-3 min) (After leaving the room temperature for 1-2h.)		① Contact resistance: 2mΩ MAX. ② Insulation resistance: 1000MΩ MIN. ③ No damage, crack or looseness of parts	X —
Dry heat		Exposed at 105 ± 2°C, 250h (After leaving the room temperature for 1-2h.)		① Contact resistance: 2mΩ MAX. ② Insulation resistance: 1000MΩ MIN. ③ No damage, crack or looseness of parts	X —
Resistance to soldering heat		① Solder bath method  Solder temperature : 260°C for Immersion, duration : 10 sec . ② Manual soldering Soldering iron temperature : 350±10°C Soldering time : 5 sec. No strength on contact.		Such as impaired function ,no deformation of case of excessive looseness of the terminals. 	X —
Solderability		Soldered at solder temperature, 245°C for insertion duration, 5sec.		Solder shall cover a minimum of 95 % of the surface being immersed.	X —
Remarks Note1: Include the temperature rising by current. Note2: No condensing. Note3: Apply to the condition of long term storage for unused products before mount on pcb, After mounted on pcb, operating temperature and humidity range is applied for interim storage during transportation.					
	Count	Description of revisions	Designed	Checked	Date
	3	DIS-H-00005429	TS. MIYAKI	SZ. ONO	20191028
Unless otherwise specified, refer to IEC 60512.				Approved	HS. OKAWA
				Checked	ST. WADA
				Designed	TT. OHSAKO
				Drawn	TT. OHSAKO
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			Drawing no.	ELC-379290-50-00	
	Specification sheet		Part no.	DF60FR-3P-10. 16DSA (50)	
	Hirose electric co., ltd.		Code no.	CL680-4004-0-50	 1/2

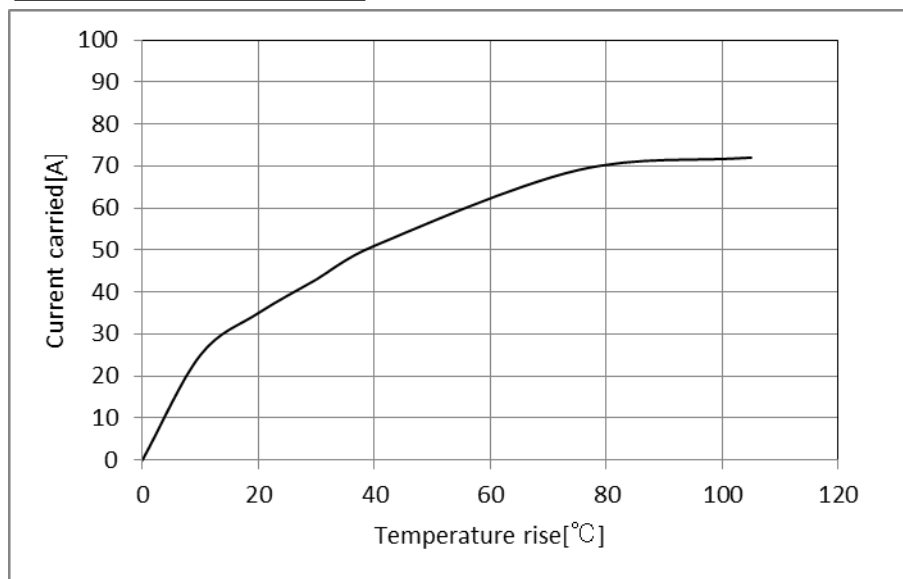
- (Note 4) Derating curve takes manufacturing tolerances into consideration as well as uncertainties in temperature measurement and the measuring set up and is derived from the basic curve multiplied by 0.8 calculation.
- (Note 5) Indicates the current that corresponds to the RTI value (temperature at which performance is halved) of the resin when the ambient temperature is 25°C.  $\triangle$   
The value of rated current differs depending on the ambient temperature.  
It is recommended to use the product within the derating curve zone.
- (Note 6) Measurement method of derating curve is shown below.
- Test specimen: Unused DF60-6P-10.16DS(27).  
Unused DF60-6S-10.16C  
Unused DF60-8SCFA
  - Test cable spec: AWG 8
  - Test condition: Turn on electricity under the static state and measure.  
(Test report # TR680E-20802)

[Reference]

Derating curve



Temperature rise curve



Note QT:Qualification Test AT:Assurance Test X:Applicable Test

Drawing no.

ELC-379290-50-00

**HRS**

Specification sheet

Part no.

DF60FR-3P-10.16DSA (50)

Hirose electric co., ltd.

Code no.

CL680-4004-0-50



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