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PolySwitch® PTC Devices

Overcurrent Protection Device

Raychem Circuit Protection Products

PRODUCT: AHRF1100

DOCUMENT: SCD 26639
PCN: RF0207
REV LETTER: C
REV DATE: MAY 8, 2007

Specification Status: Released

Electrical Rating

Voltage: $16V_{DC}$ MAX
Current: 100A MAX

Insulating Material:
Cured, Flame Retardant Epoxy Polymer
meets UL94 V-0 Requirements

Lead Material:
20 AWG Tin Plated Copper
(0.8 mm [0.032] nom. diameter)

Marking:

XX 16 — Manufacturer's Mark and Voltage
HF11 — Part Identification
□□□□ — Lot Identification (can be on back)

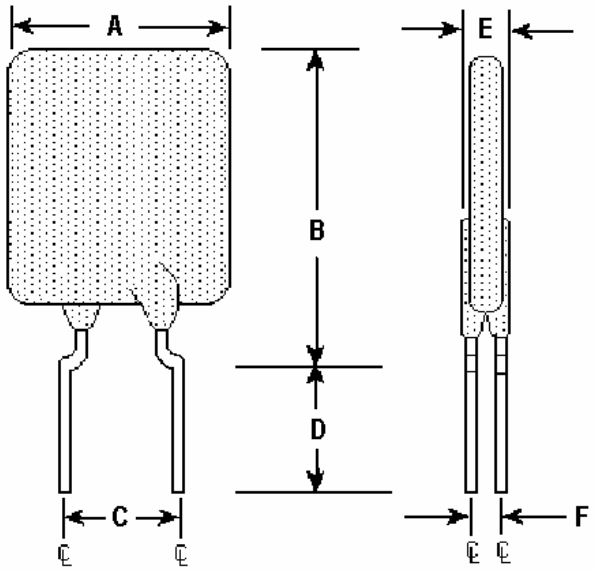

TABLE I. DIMENSIONS:

	A		B		C		D		E		F
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
mm:	--	21.0	--	26.1	9.4	10.9	7.6	--	--	3.0	1.2
in*:	--	(0.83)	--	(1.03)	(0.37)	(0.43)	(0.3)	--	--	(0.12)	(0.05)

*Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

CURRENT RATINGS		TIME TO TRIP	INITIAL RESISTANCE VALUES		$R_{a\ MAX}$	TRIPPED-STATE POWER DISSIPATION
AMPS AT 25°C		SECONDS AT 25°C, 55A	OHMS AT 25°C		OHMS AT 25°C	WATTS AT 25°C 16V
HOLD	TRIP	MAX	MIN	MAX	MAX	TYP
11.0	21.2	11.0	0.0048	0.009	0.013	5.5

Reference Documents: PS400, PS300 (reference for $R_{1\ MAX}$)
Precedence: This specification takes precedence over documents referenced herein.
Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid.
CAUTION: Operation beyond the rated voltage or current may result in rupture, electrical arcing or flame.

Materials Information

ROHS Compliant — Directive 2002/95/EC Compliant
ELV Compliant — Directive 2000/53/EC Compliant
Pb-Free

TABLE III. AUTOMOTIVE SPECIFIC STRESS TESTS AND TEST CONDITIONS:

ELECTRICAL STRESS TESTS	TEST CONDITIONS (see note 2)
ESD Voltage Withstand (see note 1)	25kV
Short Circuit Fault Current Durability	25 cycles, 16V, 200A
Fault Current Durability	350 cycles, 16V/100A
End-of-life Mode Verification	1750 cycles, 16V/100A
Jump Start Endurance (see note 1)	3 cycles, 26V, 1 minute duration
Load Dump Endurance (see note 1)	10 cycles, 86.5V

Note 1: The PolySwitch devices are tested in series with a load resistance and the voltages specified in the test conditions are shared between the PolySwitch device and the load resistance as specified in PS400.

Note 2: Please refer to Appendix A of PS400 for the detailed test procedures.