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PolySwitch® PTC Devices

Overcurrent Protection Device

Raychem Circuit Protection Products

PRODUCT: AGRF500

DOCUMENT: SCD 25232
PCN: A12655
REV LETTER: B
REV DATE: MAY 8, 2007
PAGE NO.: 1 OF 2

Specification Status: RELEASED

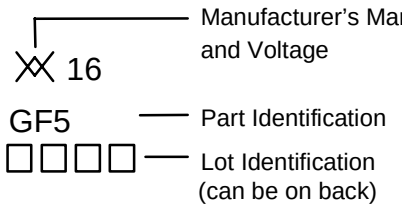
Electrical Rating

Voltage: 16V_{DC} MAX

Insulating Material:
Cured, Flame Retardant Epoxy Polymer

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

Part Marking:



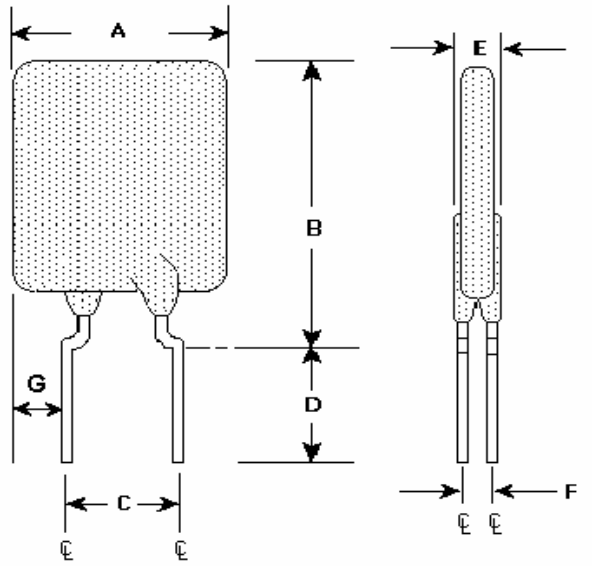


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	A		B		C		D		E		F	G	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP	MIN	MAX
mm:	--	10.4	--	15.6	4.3	5.8	7.6	--	--	3.0	1.2	--	3.94
in*:	--	(0.41)	--	(0.61)	(0.17)	(0.23)	(0.30)	--	--	(0.12)	(0.05)	--	(0.16)

*Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

CURRENT RATINGS			TIME TO TRIP	INITIAL RESISTANCE		$R_{1\ MAX}$ 1 HR. POST TRIP RESISTANCE STANDARD TRIP	$R_{A\ MAX}$	TRIPPED-STATE POWER DISSIPATION
AMPS AT 25°C			SECONDS AT 25°C, 25 A	OHMS AT 25°C		OHMS AT 25°C	OHMS AT 25°C	WATTS AT 25°C
HOLD AT $R_{1\ MAX}$	HOLD AT $R_{A\ MAX}$	TRIP	MAX	MIN	MAX			TYP
5.0	4.3	9.4	2.5	0.014	0.024	0.034	0.048	2.7

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