
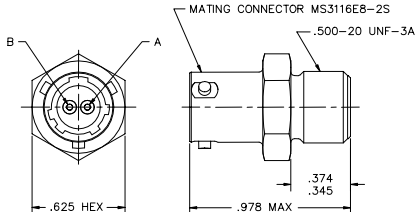




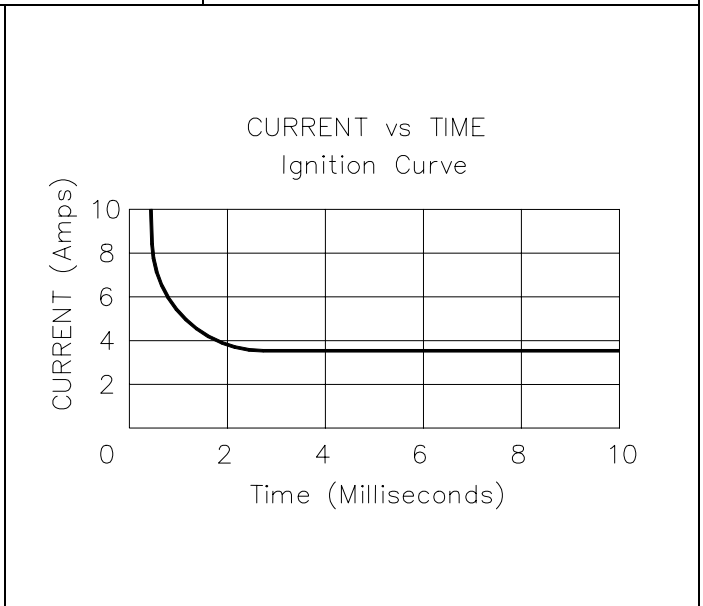
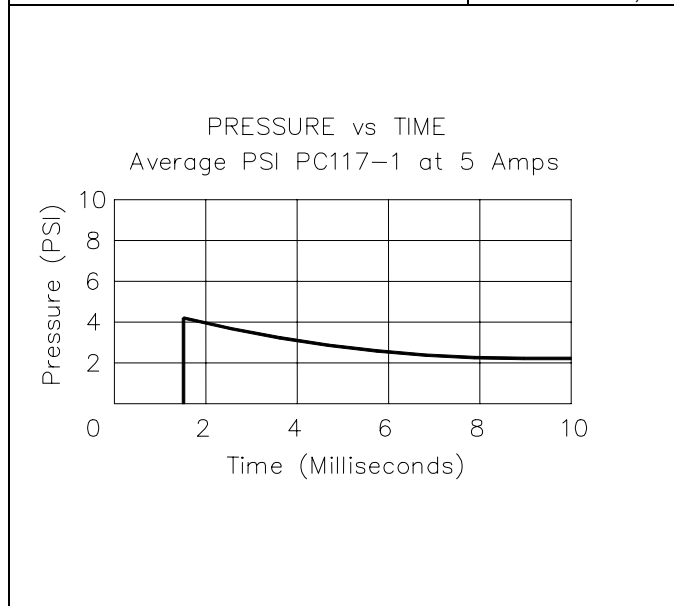
24225 GARNIER STREET • TORRANCE • CALIFORNIA 90505-5355 • U.S.A.
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PC117 Power Cartridge, 1/2-20 inch thread	Datasheet Page 1 of 3	Orig. issue: 07JAN04 Rev. A: 20JUL06
DEVICE	1A/1W INITIATOR –MIL-I-23659	DISPOSITIF
TYPE	Model PC-117 - PN 9391477	REFERENCE
1. PERFORMANCES <ul style="list-style-type: none"> All-Fire current (Bruceton Method) No-fire current Functioning time Hermeticity Redundancy Nominal peak pressure, 10 cc 	3.5 A(R< 0,999 95%) +77°F 1A/1W – 5 min (-165°F +165°F) < 2ms (I= 5A) < 10 ⁻⁶ atm. Cm ³ / s (He) b.a.f See tabulation on page 3	1. PERFORMANCES <ul style="list-style-type: none"> Courant de feu 100% (Method de Bruceton) Courant de non-feu Temps de fonctionnement h�rm�ticit� Redondance Pression nominal
2. MECHANICAL CHARACTERISTICS <ul style="list-style-type: none"> Weight Electric connection <p style="text-align: center;">MATERIALS</p> <ul style="list-style-type: none"> Body Leads or connector Hermetic seal <ul style="list-style-type: none"> Feed through Front 	15 g MS3116E8-2S Stainless steel Kovar pins Glass to metal seal	2. CARACTERISTIQUEQUES MECANIQUES <ul style="list-style-type: none"> Masse Connexion �lectrique <p style="text-align: center;">MATERIAUX</p> <ul style="list-style-type: none"> Corps C�blage ou connecteur H�rm�ticit� <ul style="list-style-type: none"> Passage �lectrique Avant
FIXING MODE	Thread 1/2-20UNF-3A	MODE DE FIXATION
INSTALLATION TORQUE	95 – 105 inch pounds	TORSION D' INSTALATION
3. ELECTRICAL CHARACTERISTICS <ul style="list-style-type: none"> Bridgewire number Bridgewire resistance Insulation resistance Leads resistivity Dielectric strength Static sensitivity <ul style="list-style-type: none"> All leads shorted to case Between leads 	1 1.0 ± 0.1 Ω > 2 Meg Ω / 500 VDC > 100 μ A / 300 VAC 25 Kv / 500 pF / 5000 Ω	3. CARACTERISTIQUES ELECTRIQUES <ul style="list-style-type: none"> Nombre de ponts-fusibles R�sistance du filament R�sistance d'isolement R�sistance des conducteurs Rigidit� di�lectrique D�charges �lectrostatiques <ul style="list-style-type: none"> Entre circuit et masse Entre fils
<p style="text-align: center;">CURRENT RATINGS</p> <ul style="list-style-type: none"> Nominal firing current All-fire current No-Fire current Safe no-fire current for testing 	> 5 A / 4 ms 3.5 A (R<0,999 95%) +77°F 1A/1W 5min (-165°F +165°F) < 10mA	<p style="text-align: center;">COURANTS LIMITES</p> <ul style="list-style-type: none"> Courant de mise � feu nominal Courant de feu 100% Courant maxi de non feu Courant maxi de contr�le
		 <p style="text-align: center;">WIRING DIAGRAM Bridgewire Resistance 1.0 ± .1 ohm</p>



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4. PYROTECHNIC CHARACTERISTICS <ul style="list-style-type: none"> • Initiator type • Principal pyrotechnic load 	ZPP & Hi-Temp	4. CARACTERISTIQUES PYROTECHNIQUES <ul style="list-style-type: none"> • Type d'initiateur • Charge pyrotechniques principale
5. ENVIRONMENTAL TEST SPECIFICATIONS <ul style="list-style-type: none"> • Mechanical shock • Acceleration • Sinusoidal vibration • Random vibration • Humidity • Thermal shock • Thermal vacuum • High Altitude • Operating temperature • Storage life 	100g 6 shock impacts /11ms 3axis 20 g / 120 sec 25 Hz 2g 10 – 100 .01 - .08 6db/oct 100 – 400 0.8 constant 400 – 2 KC 0.6 – 0.16 3db/oct MIL-E-5277C Proc. 1 -165°F +165°F 20 cycles 1hr +165°F 1x10 ⁻⁶ Torr (650K alt) -165°F 1x10 ⁻⁶ Torr (96 hr) 1.5 x 10 ² Torr (250,000 feet) -165°F +165°F 10 years	5. RESISTANCE AUX CONDITIONS D'ENVIRONNEMENT <ul style="list-style-type: none"> • Chocs mécaniques • Accélération • Vibrations sinusoïdales • Vibrations aléatoires • Humidité • Chocs thermiques • Vide thermique • Altitude • Températures de fonctionnement • Durée de stockage
6. DEVELOPMENT STATUS <ul style="list-style-type: none"> - References: <ul style="list-style-type: none"> • Development date • Qualification test report • Last verification of qualification date - Flight applications: <ul style="list-style-type: none"> • Projects • Dates • Users 	1980 US Satellites & Tactical Systems 9391477- 1458 1994 US satellites & Tactical Systems 1980 – present AEROJET, GE/RCA, HONEYWELL, LOCKHEED	6. CONDITIONS DE DEVELOPPEMENT <ul style="list-style-type: none"> - Références: <ul style="list-style-type: none"> • Date du développement • Rapport de qualification • Contrôls de qualification ultérieurs - Applications spatiales: <ul style="list-style-type: none"> • Projets • Dates • Utilisateurs





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NOTE: Pressure output is ALWAYS tailored to meet next assembly functional requirement.

MODEL NO.	PART NUMBER	PRESSURE OUTPUT PSI 10 CC	MODEL NO.	PART NUMBER	PRESSURE OUTPUT PSI 10 CC
PC 117-1	9391477-1	700 ± 150	PC 117-19	800187-19	2040 ± 410 (P ₂)
PC 117-4	9391477-4	825 ± 125	PC 117-20	800187-3	2040 ± 410 (P ₁)
PC 117-7	9391477-7	850 ± 150	PC 117-21	800187-4	2040 ± 410 (P ₂)
PC 117-11	9391477-11	825 ± 125	PC 117-22	800187-22	2040 ± 410 (P ₂)
PC 117-18	800187-18	2040 ± 410 (P ₁)	PC 117-23	800187-23	2040 ± 410 (P ₁)
MODEL NO.	PART NUMBER	PRESSURE OUTPUT PSI 2 CC			
PC 117-14	800187-14	3500 - 4500			
MODEL NO.	PART NUMBER	DoD IDENTIFICATION	Qualified to	Qualified for	PRESSURE OUTPUT PSI 10 CC
PC117-8	9391477-8	MARK 31 MOD 0	MIL-I-23659C	Tactical use applications	4150 ± 350

Notes:

1) The entire PC117 series are assembled identical to the Mark 31 Mod 0 cartridge – they contain a glass-to-metal seal - ceramic header - and zpp ignition interface, therefore, all PC117 series cartridges are by similarity, qualified to MIL-I-23659C.

2) Since 1980, more than 46,000 PC117 cartridges have been produced. Their high functional reliability has been demonstrated in space and in tactical applications. No field failure has ever been encountered.