

The C12733-01 and C12733-02 are high voltage power supply modules that have been designed for used in severe environments such as oil and natural gas oil well logging, geological exploration fields.

FEATURES

- **Wide operating temperature**
Operating ambient temperature: -40 °C to +175 °C
- **High reliability for shock / vibration**
Vibration: 300 m/s², Shock: 10000 m/s²,
- **Best match with most of the Hamamatsu ruggedized high temperature PMT assemblies**



SPECIFICATIONS

Parameters		C12733-01	C12733-02	Unit
Input voltage		+15 ± 1		V
Input current (with full load) ^(A)	Typ.	50		mA
Variable output voltage range		-1000 to -1800	+1000 to +1800	V
Output current	Max.	90		μA
Line regulation against ±1 V input change ^{(A)(B)}	Typ.	±0.1		%
Load regulation against 0 % to 100 % load change ^(A)	Typ.	±0.1		%
Ripple / noise (p-p) ^{(A)(B)}	Typ.	50		mV
Output voltage control		By an external controlling voltage (0 V to +5 V)		—
Controlling voltage input impedance	Typ.	10		kΩ
Output voltage setting	Typ.	-(Controlling voltage × 160 + 1000)	+(Controlling voltage × 160 + 1000)	V
Output voltage rise time (0 % → 99 %) ^{(A)(B)(C)}	Typ.	350		ms
Temperature coefficient	Typ.	0.005		%/°C
Operating humidity range		-40 to +175		°C
Storage humidity range		-55 to +70		°C
Resistance to vibration		300 m/s ² , 10 Hz to 2000 Hz		—
Resistance to shock		10000 m/s ² , 1/2 sine, 0.5 ms		—
Weight	Typ.	80		g
Protective function		Modules protected against continuous overloading / short circuit in output / under voltage lockout		—

NOTE: (A)At maximum output voltage (B)At maximum output current (C)Input voltage 0 V → +15 V, Controlling voltage +5 V

Figure 1: Output voltage controlling characteristic

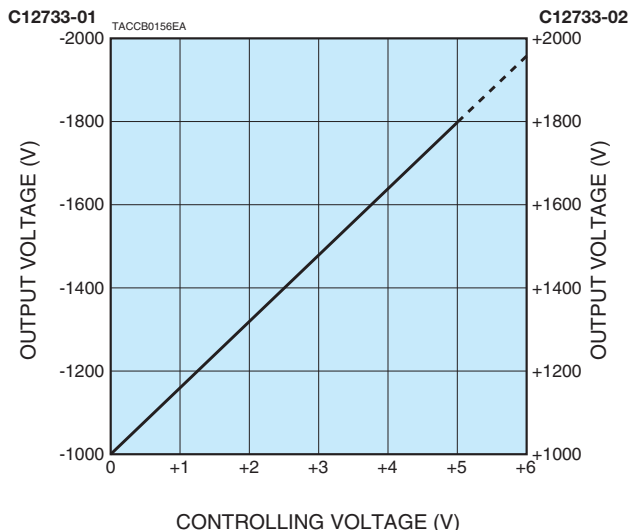
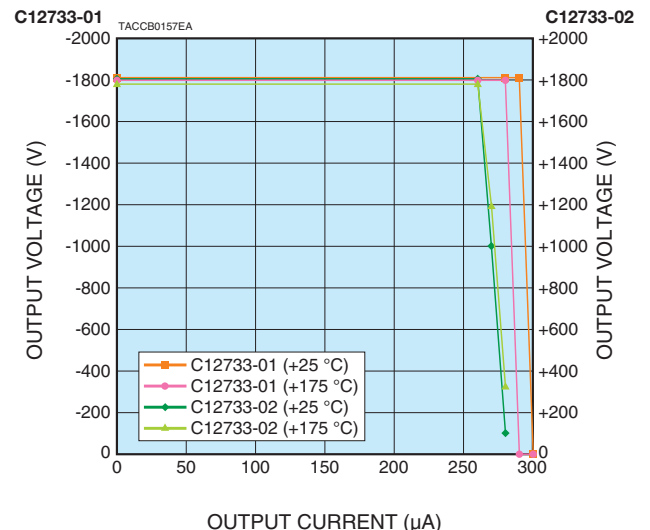


Figure 2: Output current overload characteristic

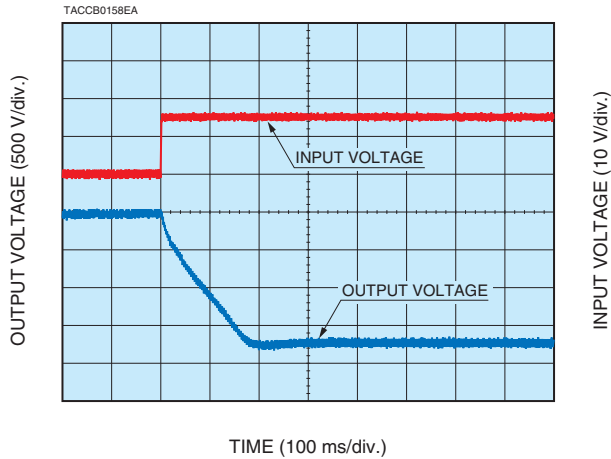


HIGH VOLTAGE POWER SUPPLY

C12733-01, C12733-02

Figure 3: Output voltage rise time characteristics

●C12733-01 (at +25 °C)



●C12733-01 (at +175 °C)

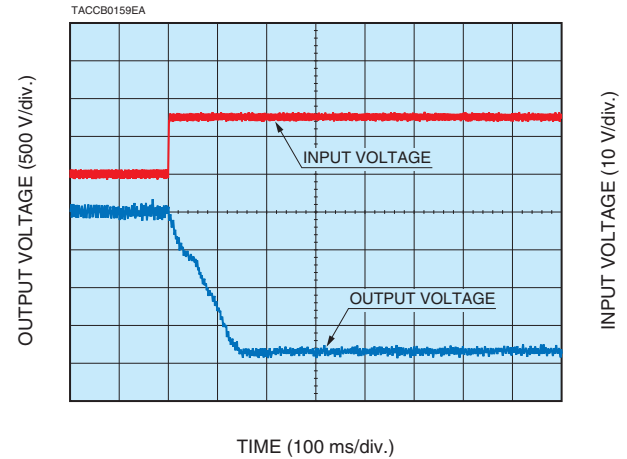
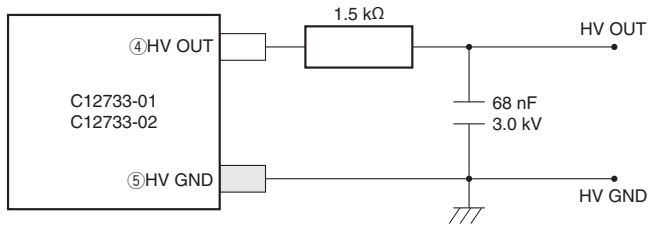
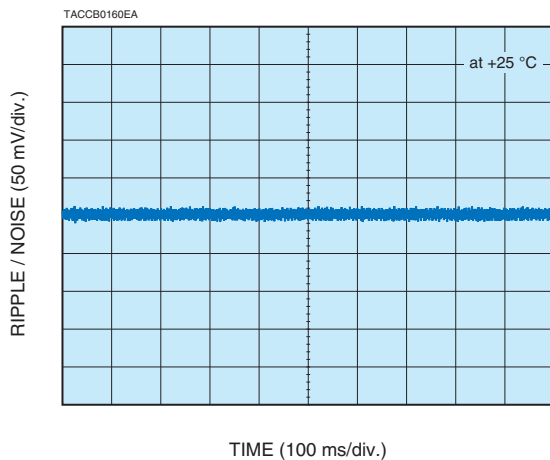


Figure 4: Example of Ripple / Noise reduction circuit



●With reduction circuit



●Without reduction circuit

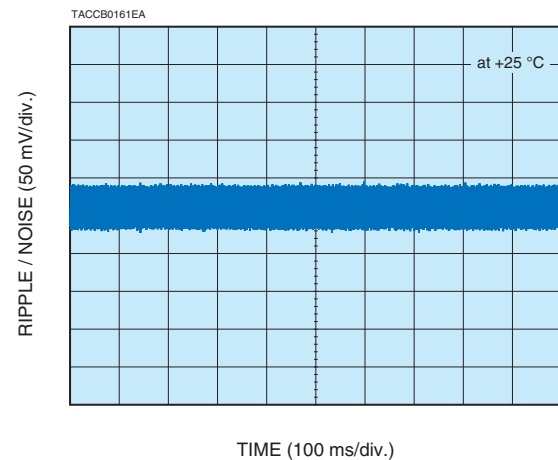
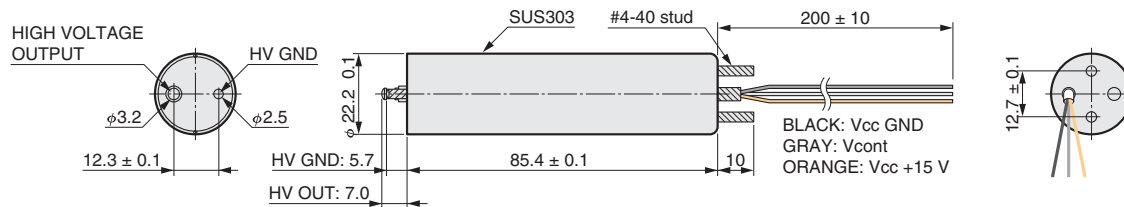


Figure 5: Dimensional Outline (Unit: mm)



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