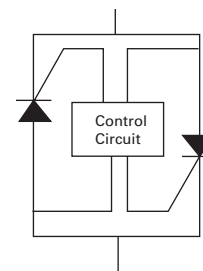


Design for LED open circuit protection

The PL18BH series is a two terminal LED protector with low dropout voltage rated for max 1000mA bypass current. Low operation current at monitoring mode and high bypass current capability at triggered mode. Build-in reverse diode for bypass reversed supply voltage. The PL18BH series is designed for parallel connection with power LED. It bypasses LED driving current when LED at open circuit condition. It also bypasses LED driving current at reverse connected driving current to LED.

Features

- RoHS compliant
- Automatically reset after power cycle
- IEC-61000-4-2 ESD 30kv(Air),30kv(Contact)
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Exsemi technology



Main applications

- LED Lighting
- LED backlight for LCD TV/ Monitor
- High Power LED Protection

Electrical Characteristics (TA=25°C)

Part Number	Marking	V _{BR} breakdown		V _{DRM} breakdown	I _H	I _S	I _T @V _T	V _T @ I _T = 1 Amp	Critical rate of rise dV/dt
		Volts		Volts	mAmps	mAmps	Amps	Volts	Volts
		Min	Max	Min	Min	Max	Max	Max	Max
PL18BH	PL18H	18	33	18	5	100	1.0	1.2	250V/μs

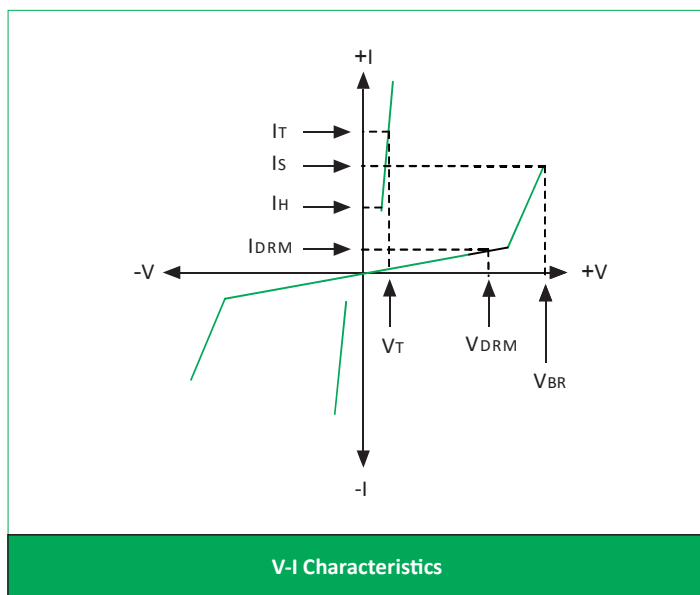
Electrical Parameters (TA=25°C)

Symbol	Parameter	Symbol	Parameter
V _{DRM}	Stand-off voltage, is measured at I _{DRM}	I _H	Holding current
I _{DRM}	Leakage current, is measured at V _{DRM}	I _T	ON-state current
V _{BR}	Breakover voltage, is measured at 100V/μs	V _T	On-state voltage
I _S	Breadover current		

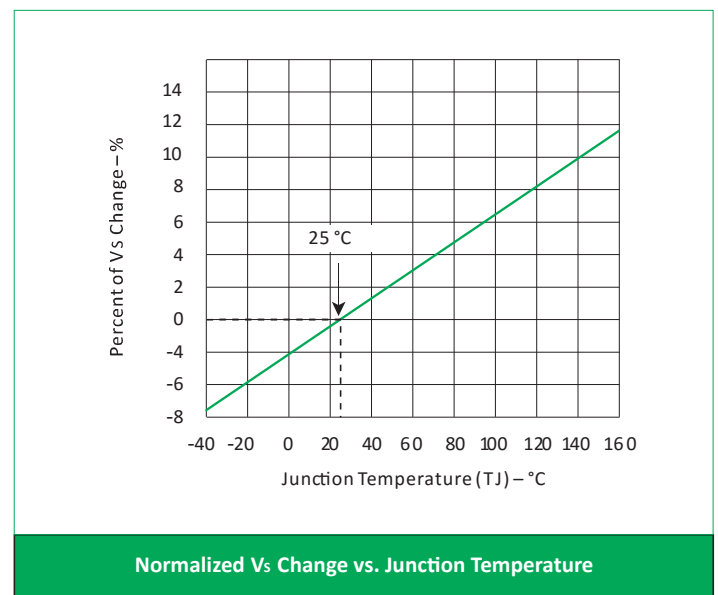
Absolute Ratings (TA=25°C)

Symbol	Parameter	Value	Unit
Ts	Storage temperature range	-40 to +150	°C
Tj	Maximum junction temperature	150	°C
Ir	Minimum On-State Current, (TA = 25° C),	1000	mA

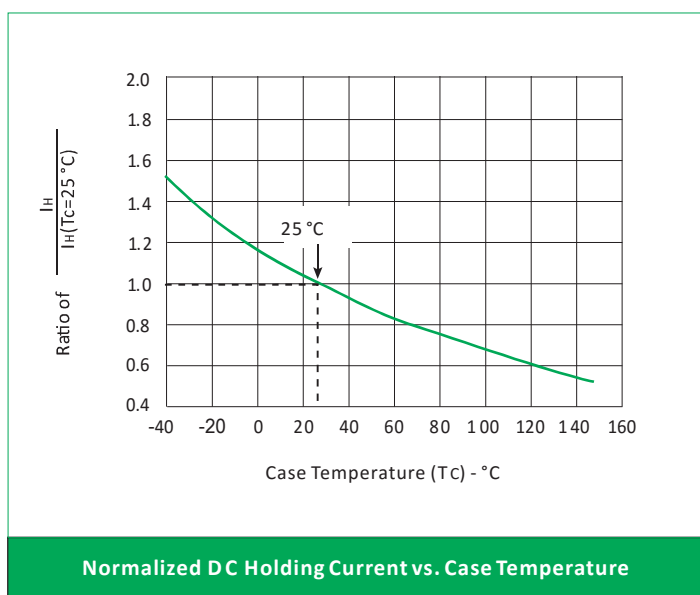
Ratings and Characteristic Curves (TA=25°C unless otherwise noted)



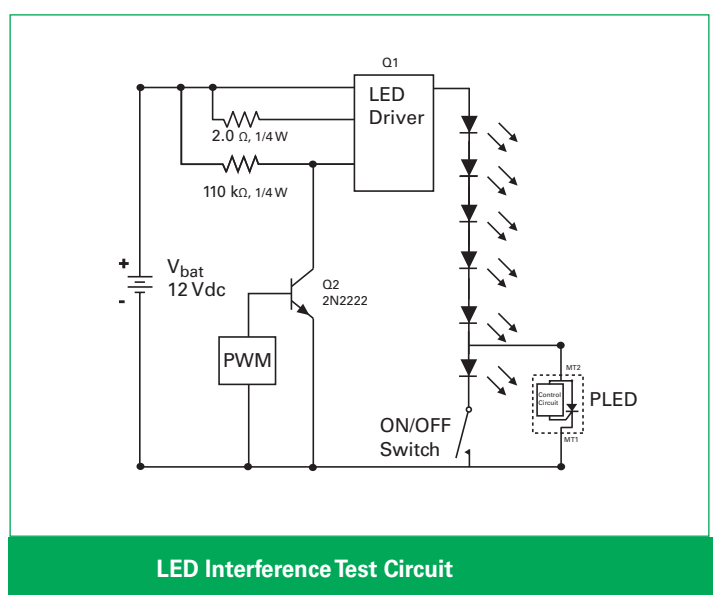
V-I Characteristics



Normalized V_s Change vs. Junction Temperature



Normalized DC Holding Current vs. Case Temperature



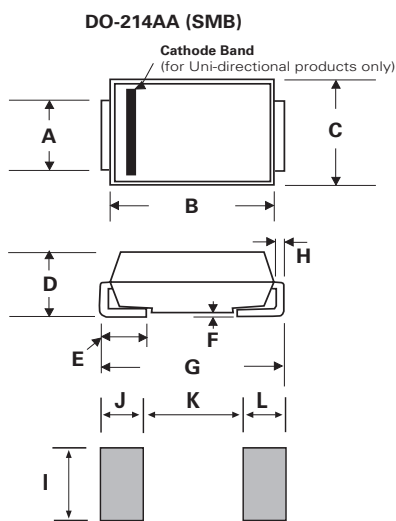
LED Interference Test Circuit

ORDERING INFORMATION

Device	Package	Shipping
PL18BH	SMB	3000 / Tape & Reel

PACKAGE DIMENSIONS

SMB DIMENSIONS



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.077	0.086	1.950	2.200
B	0.160	0.180	4.060	4.570
C	0.130	0.155	3.300	3.940
D	0.084	0.096	2.130	2.440
E	0.030	0.060	0.760	1.520
F	-	0.008	-	0.203
G	0.205	0.220	5.210	5.590
H	0.006	0.012	0.152	0.305
I	0.089	-	2.260	-
J	0.085	-	2.160	-
K	-	0.107	-	2.740
L	0.085	-	2.160	-