Leiditech

PLED18CA

LED Shunt Protection

Description

The open LED protectorprovides a switching electronic shunt path whenan LED in an LED arrayfailsas an opencircuit.This ensures that theentire array of LED s will continue to functioneven if a single LED inthearray does not. This provides higher reliable lighting functions In applications such as headlights, aircrafts, aircraft runway lighting, Roadside warning lights, etc.This device is compatible with one,two and Three watt LEDs that haveanominal 3V forward characteristic.

SMA

Electrcal Characteristics (Tamb=25℃)

Part Number	V_{DRM} breakdown	I_{DRM}	V_{BR} breakdown	I_S	V_T	I_T	I_H
	Min.	Max.	Max.	Max.	Max.	Max.	Min.
	V	uA	V	mA	V	A	mA
PLED18CA	18	10	33	600	1.5	1	5

General Notes:

●All measurements are made at an ambient temperature of 25℃.Ipp applies to -40℃ through +85℃ temperature range.

●Special voltage(V_{BO} and V_{DRM}) and holding current(I_H) requirements are available up on request.

Electrical Parameters(Tamb=25℃)

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		

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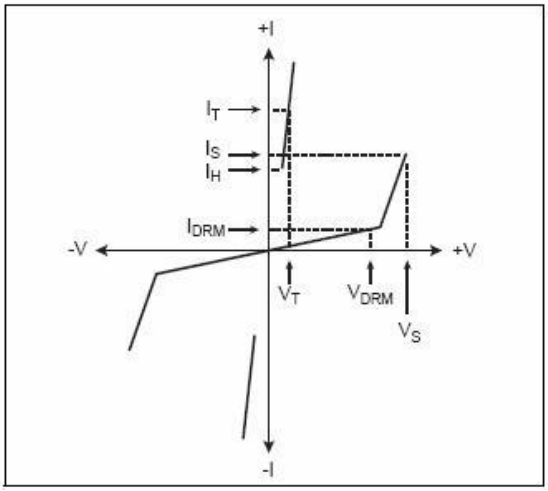
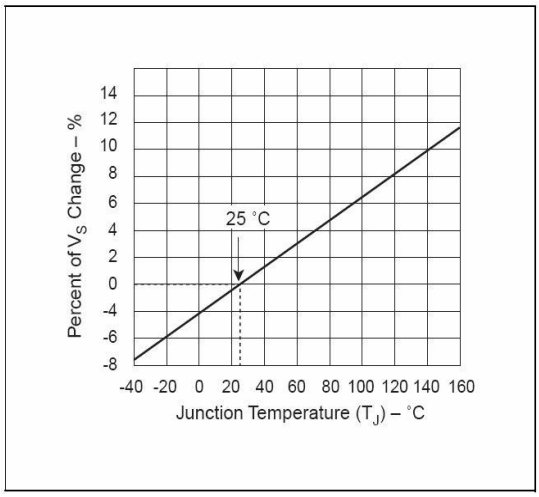
Thermal Considerations

Package DO214AC	Symbol	Parameter	Value	Unit
	T_J	Operating Junction Temperature	-40 to +150	℃
	T_S	Storage Temperature Range	-60 to +150	℃
	$R_{\theta JA}$	Junction to Ambient on printed circuit	90	℃/W

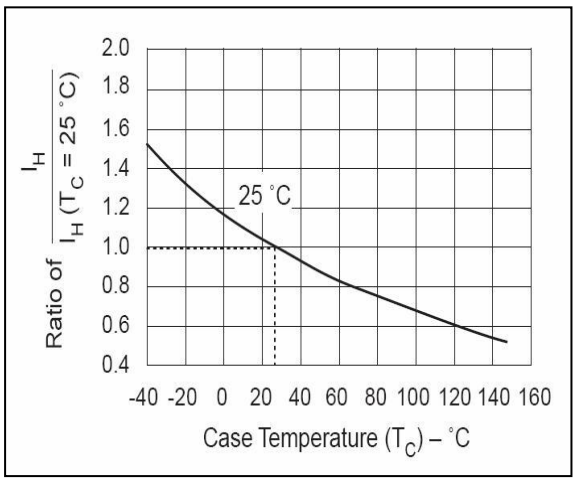
V-I Characteristics



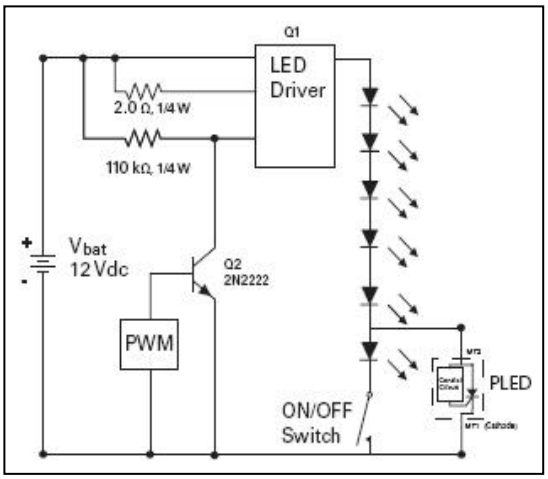
V_{BR} vs. JunctionTemperature



Normalized DC Holding Current vs. Case Temperature



LED InterferenceTest Circuit



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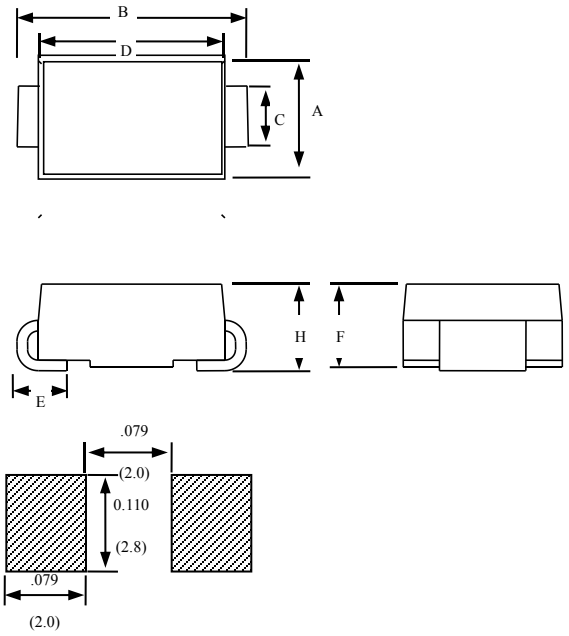
Product Dimensions

Dimension	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.098	0.114	2.50	2.90
B	0.188	0.208	4.80	5.28
C	0.055	0.062	1.40	1.60
D	0.157	0.181	4.00	4.60
E	0.030	0.060	0.76	1.52
F	0.078	0.096	2.00	2.44
H	0.080	0.104	2.051	2.643



Summary of Packing Options

Package Type	Description	Packing Quantity	Industry Standard
DO214AC	Embossed Carrier Reel Pack	5000PCS	

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