Product Change Notification

LD41__60 POW-R-BLOK™ Is Discontinued
LDR1__66 To Be Offered as Replacement
: 2021-012 Rev.: 01

Date: 2021 / DEC / 29

Author: John Yurack

Subject of Change:

Discontinuation of the LD41__60 POW-R-BLOK™s, including:

- LD410860, LD411060, LD411260, LD411460, LD411660, LD411860

Introduction of new part type LDR1__66 to be offered as a direct replacement for Powerex LD41__60 dual diode modules. They are drop in replacements both mechanically and electrically with minor differences noted below.

Description of Change:

Powerex originally introduced the LDR1__66 modules as an alternative for the LD41_60 modules to provide increase options for supply during the transfer of the manufacturing operations for the LD41 from the former Powerex facility located in Morocco to the Powerex manufacturing partner facility located in Poland. Powerex has ended the module manufacturing operations in Poland which has resulted in the discontinuation of the LD41 module products.

The LDR1 is an equivalent replacement, but there will be differences in the mechanical and electrical characteristics. Please review the product data sheet and make determination as to whether this product will be a suitable replacement for use in their application. It is an equivalent replacement.
These differences include, but are not limited, to the following:

- Slightly less overall length dimension (149 mm) for the LDR1 as compared to the 150 mm overall length of the LD41.
- Slightly wider terminals (26 mm on terminals 2 & 3) for the LDR1 as compared to the terminal widths for the LD41 (25.4 mm on terminals 2 & 3)
- A slightly smaller screw depth under the terminals of 17 mm for the LDR1 as compared to the 17.5 mm depth for the LD41

This module was developed with a manufacturing partner with a country of origin of Russia that has a quality management system that is in compliance with ISO 9001. This product is RoHS and REACH compliant and the parts are UL Recognized.

Reason for Change:

A new product is being introduced to provide an alternative product after the discontinuation of the manufacturing operations for the LD41 modules at the former manufacturing locations in Morocco and Poland.

Identification of Change:

This new product will be identified by a new part number LDR1__66 and will be labeled with PRX RU.
This module package has slightly different physical characteristics that differentiate it from the original LD41__60 modules.

Time Schedule for Change:

Delivery Begins: Third Quarter of 2017

Supporting Documentation:

Attachment – LDR1__66 Data Sheet

Continued on following page

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Quality Management system:

The Powerex partner manufacturing facility has a quality system that is in compliance with ISO 9001.
Parts will be qualified at the Powerex Youngwood, PA facility which has a quality system that is in compliance with ISO 9001 and AS9100.

Customer Approval for: PCN # 2017-022 REV 01

- Please check the appropriate box and return this form to Powerex or our manufacturing representative within 30 days.
- According to JEDEC Standard JESD46, a lack of response to this product change notification within 30 days constitutes the customer's acceptance of the change.

☐ We agree with this change and its schedule.

☐ We have objection(s) as noted here:

☐ We request additional information:

Customer: **Signature:**

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Recommended Replacements for LD41__60 Dual Diode Modules

LD41 Part	Recommended Replacement
LD410860	LDR11666
LD411060	LDR11666
LD411260	LDR11666
LD411460	LDR11666
LD411660	LDR11666
LD411860	LDR11866

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Differences between the LD41__60 modules and LDR1__66 modules include, but are not limited to, the following:

Ratings and Electrical Characteristics:

Characteristic	Symbol	LD41__60 Limit	LD41__60 Test Conditions	LDR1__66 Limit	LDR1__66 Test Conditions
Repetitive Peak Reverse Blocking Voltage	V_{RRM}	Up to 2600V		Up to 1800V	
Average Forward Current	$I_{T(AV)}$	600 A	180° Conduction, T_C=106°C	660 A	180° Conduction, T_C=100°C
		660 A	180° Conduction, T_C=100°C		
RMS Forward Current	$I_{T(RMS)}$	950 A	180° Conduction, T_C=106°C	1036 A	180° Conduction, T_C=100°C
		1036 A	180° Conduction, T_C=100°C		
Peak One Cycle Surge Current, Non-Repetitive	I_{TSM}	21,000 A	60 Hz, 100% V_{RRM} reapplied, T_j=125°C	20,000 A	60 Hz, 0V reapplied, T_j= $T_{j\,MAX}$
	I_{TSM}	19,000 A	50 Hz, 100% V_{RRM} reapplied, T_j=125°C	19,000 A	50 Hz, 0V reapplied, T_j= $T_{j\,MAX}$
I2t for Fusing for One Cycle	I^2t	1,840,000 A^2sec	60 Hz, 100% V_{RRM} reapplied, T_j=125°C	1,660,000 A^2sec	60 Hz, 0V reapplied, T_j= $T_{j\,MAX}$
	I^2t	1,810,000 A^2sec	50 Hz, 100% V_{RRM} reapplied, T_j=125°C	1,805,000 A^2sec	50 Hz, 0V reapplied, T_j= $T_{j\,MAX}$
Storage Temperature	T_{stg}	-40 to +150 °C		-40 to +125 °C	
Repetitive Peak Reverse Leakage Current	I_{RRM}	40 mA max	V=V_{RRM}, T_j=150°C	50 mA max	V=V_{RRM}, T_j=150°C
Peak On-State Voltage	V_{TM}	1.18 V max	T_j=25°C, I_{TM}=1500 A	1.40 V max	T_j=25°C, I_{TM}=1978 A

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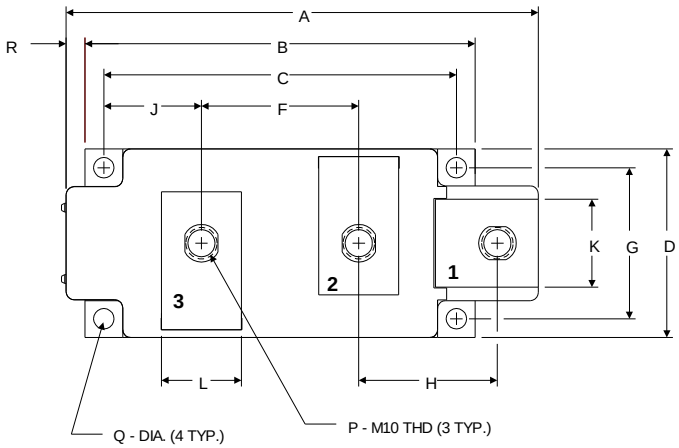
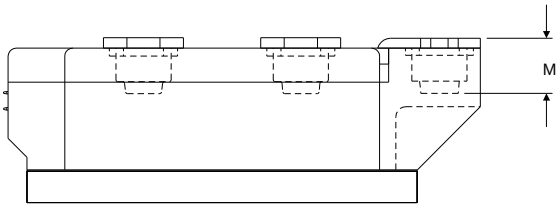
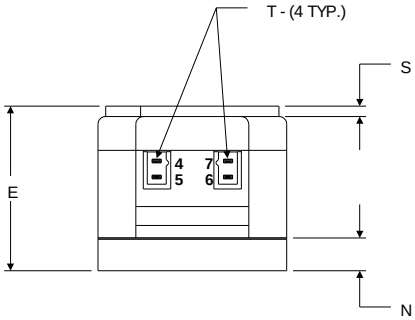
Mechanical differences between the LD41__60 modules and LDR1__66 modules include, but are not limited to, the following:

OUTLINE DRAWING







Dimension	LD41 (mm)	LDR1 (mm)
A	150	149
L	25.4	26
M	17.5	17
R	6	5