

Diodes type D42 are designed for use in power electronic circuits and equipment under normal operating conditions.

### KEY PARAMETERS

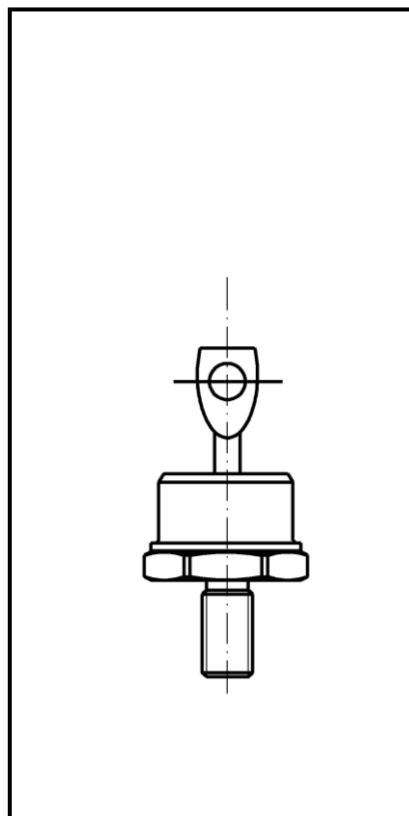
$U_{RRM}$  up to 1400 V  
 $I_{F(AV)}$  50 A  
 $I_{FSM}$  800 A

### FEATURES

- high current capabilities
- high surge current capabilities
- low thermal impedance
- tested according to IEC standards
- compact size and small weight

### APPLICATION

- High Voltage Power Supplies
- Motor Control
- Battery Chargers
- Free Wheeling Diode
- Resistance Welding



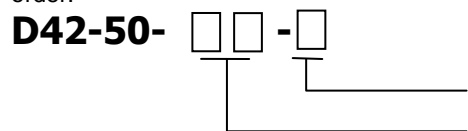
Outline type code: DO-5

See package details for further information

### ORDERING INFORMATION

When ordering please refer to device code builder presented below.

Please use the complete part number when ordering, quote or in any future correspondence relating to your order.



Polarization code: N or R

voltage class (hundreds of volts)

# D42-50

## Diode

KKD4250, April 2004 version

### ELECTRICAL PARAMETERS

#### Voltage ratings

Voltage class	$U_{RRM}$	$U_{RSM}$	$I_{RRM}$
	V	V	mA
02	200	300	5
04	400	500	
06	600	700	
08	800	900	
10	1000	1100	
12	1200	1300	
14	1400	1500	

#### Electrical properties

Parameter	Unit	Test conditions	Value
Average forward current @ case temperature	$I_{F(AV)}$	A	50
	$T_c$	°C	100
RMS forward current	$I_{F(RMS)}$	A	78
Surge current	$I_{FSM}$	A	$T_j = T_{jmax}, U_R = 0,8U_{RRM}, t_p = 10ms$
$I^2t$ – value	$I^2t$	kA <sup>2</sup> s	3,2
Forward voltage drop max.	$U_{FM}$	V	$T_j = 25^\circ C, I_{FM} = 200A$
Threshold voltage	$U_{F(T0)}$	V	0,95
Slope resistance	$r_F$	mΩ	4,5

#### Thermal properties

Parameter	Unit	Test conditions	Value
Thermal resistance, junction to case	$R_{thJC}$	°C/W	DC
Operating junction temperature	$T_{jmin} \dots T_{jmax}$	°C	-25...+150
Storage temperature	$T_{stg}$	°C	-25...+150

#### Mechanical properties

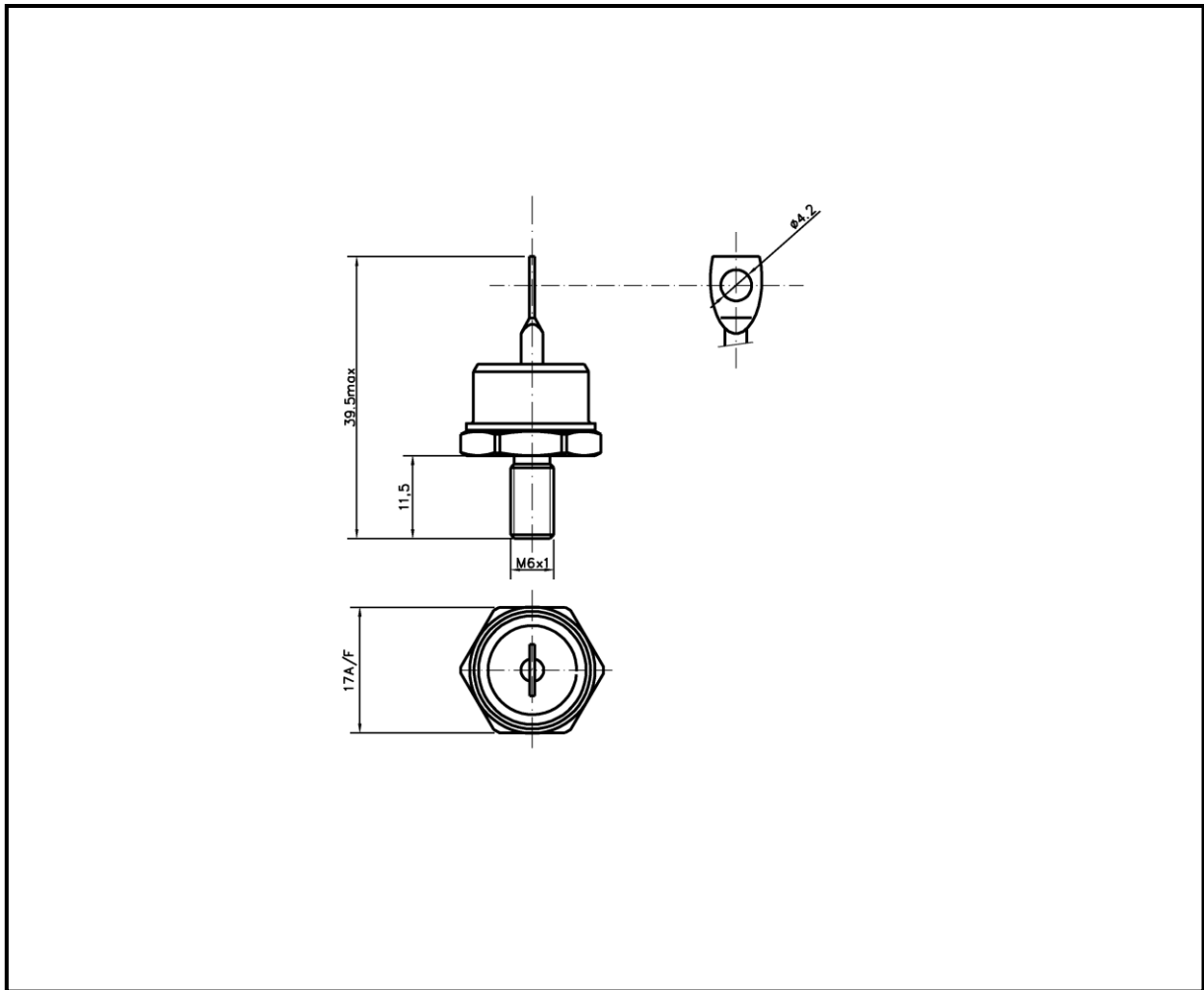
Parameter	Unit	Value
Mounting torque	M	Nm
Weight	m	g

# D42-50

## Diode

KKD4250, April 2004 version

### Package details



For further package information, please contact Sales & Marketing Department. All dimensions in mm, unless stated otherwise.  
Do not scale.

**Zakłady Elektroniczne LAMINA S.A.**  
Puławska 34  
PL-05-500 Piaseczno  
POLAND

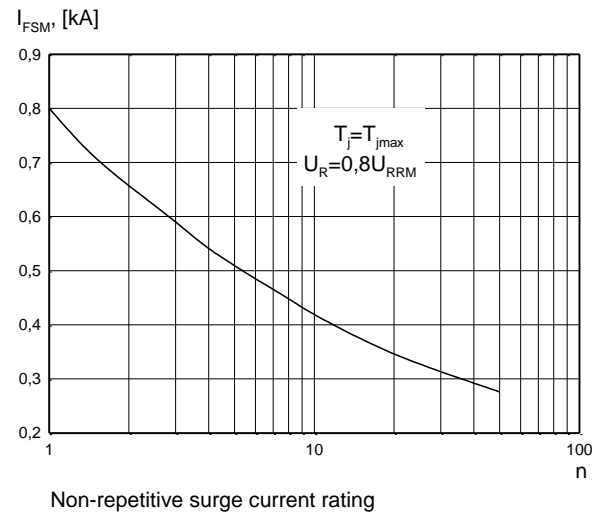
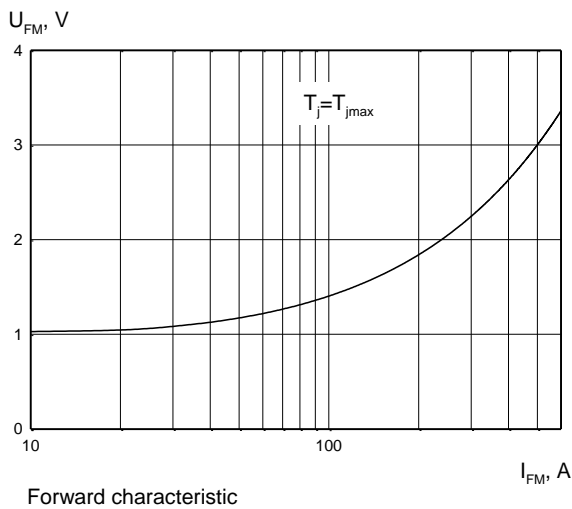
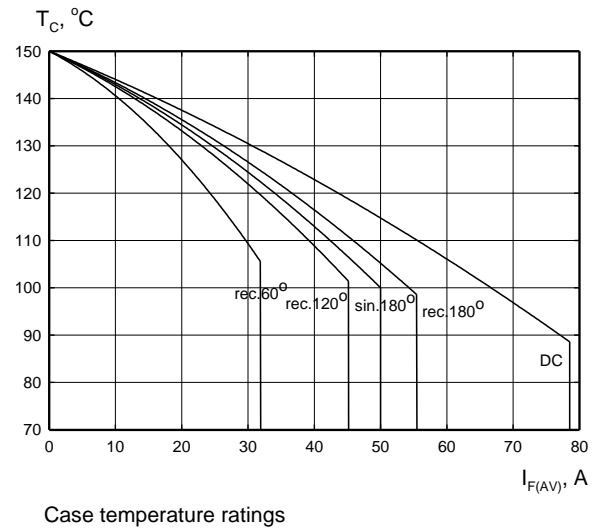
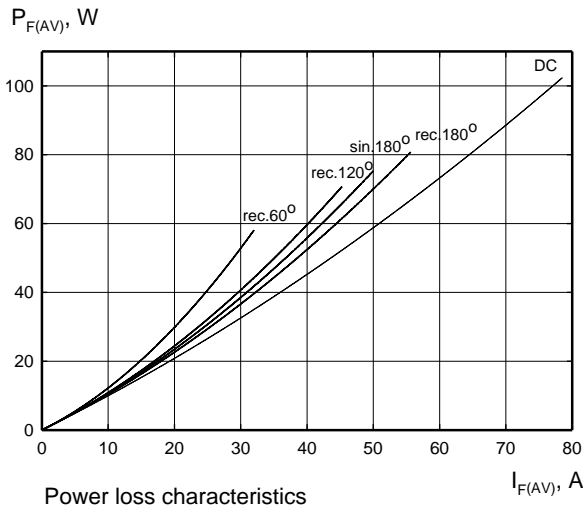
Tel.: +48-22-7572731  
Tel.: +48-22-3989409  
Fax.: +48-22-3989407  
e-mail: sekretariat@lamina.com.pl  
www.lamina.com.pl

# D42-50

## Diode

KKD4250, April 2004 version

### CHARACTERISTICS



# D42-50

## Diode

KKD4250, April 2004 version

---

