



Diodes type D52 are of modern design with internal spring loaded contacts and pressure welded glass-to-metal seal. Designed for use in power electronic circuits and equipment under normal operating conditions.

### KEY PARAMETERS

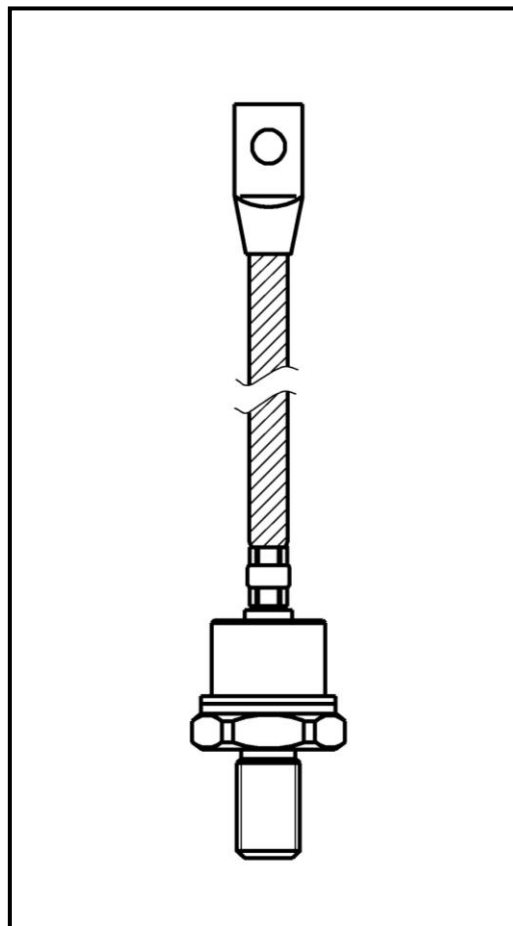
$U_{RRM}$	up to 1600 V
$I_{F(AV)}$	200 A
$I_{FSM}$	2900 A

### FEATURES

- all diffused design
- high current capabilities
- high surge current capabilities
- high rates voltages
- 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: JEDEC DO-205AC

See package details for further information

Designed for use in high power industrial and commercial rectifying circuits where high currents are encountered and high reliability is essential.

# D52-200

## Diode

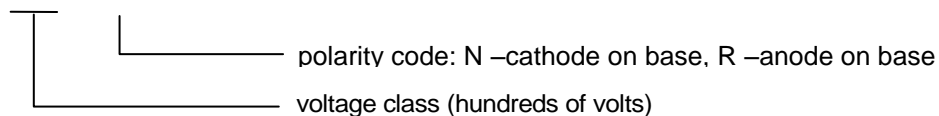


KKD52200, October 2006 version

### 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.

**D52-200-□□-□0**



### ELECTRICAL PARAMETERS

#### Voltage ratings

Voltage class	$U_{RRM}$	$U_{RSM}$	$I_{RRM}$
	V	V	mA
04	400	500	20
06	600	700	
08	800	900	
10	1000	1100	
12	1200	1300	
14	1400	1500	
16	1600	1700	

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# D52-200

## Diode



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### Electrical properties

Parameter		Unit	Test conditions	Value			
Average forward current @ case temperature	$I_{F(AV)}$	A		200			
	$T_C$	°C		<table border="1"> <tr> <td><math>U_{RRM} \leq 1200V</math></td> <td>110</td> </tr> <tr> <td><math>U_{RRM} &gt; 1200V</math></td> <td>95</td> </tr> </table>	$U_{RRM} \leq 1200V$	110	$U_{RRM} > 1200V$
$U_{RRM} \leq 1200V$	110						
$U_{RRM} > 1200V$	95						
RMS forward current	$I_{F(RMS)}$	A		315			
Surge forward current	$I_{FSM}$	A	$T_j = T_{jmax}$ , $U_R = 0,8U_{RRM}$ , $t_p = 10ms$	2900			
$I^2t$ – value	$I^2t$	kA <sup>2</sup> s		42			
On-state voltage max.	$U_{FM}$	V	$T_j = 25^\circ C$ , $I_{FM} = 470A$	1.45			
Threshold voltage	$U_{F(T0)}$	V		0,90			
Slope resistance	$r_F$	mΩ		1.07			

### Thermal properties

Parameter		Unit	Test conditions	Value				
Thermal resistance, junction to case	$R_{thJC}$	°C/W	DC	0,25				
Thermal resistance, case to heatsink	$R_{thCS}$	°C/W		0,12				
Operating junction temperature	$T_{jmin} \dots T_{jmax}$	°C		<table border="1"> <tr> <td><math>U_{RRM} \leq 1200V</math></td> <td>-40...+190</td> </tr> <tr> <td><math>U_{RRM} &gt; 1200V</math></td> <td>-40...+175</td> </tr> </table>	$U_{RRM} \leq 1200V$	-40...+190	$U_{RRM} > 1200V$	-40...+175
$U_{RRM} \leq 1200V$	-40...+190							
$U_{RRM} > 1200V$	-40...+175							
Storage temperature	$T_{stg}$	°C		-40...+190				

### Mechanical properties

Parameter		Unit	Value
Mounting torque	M	Nm	14 ... 17
Weight	m	g	130

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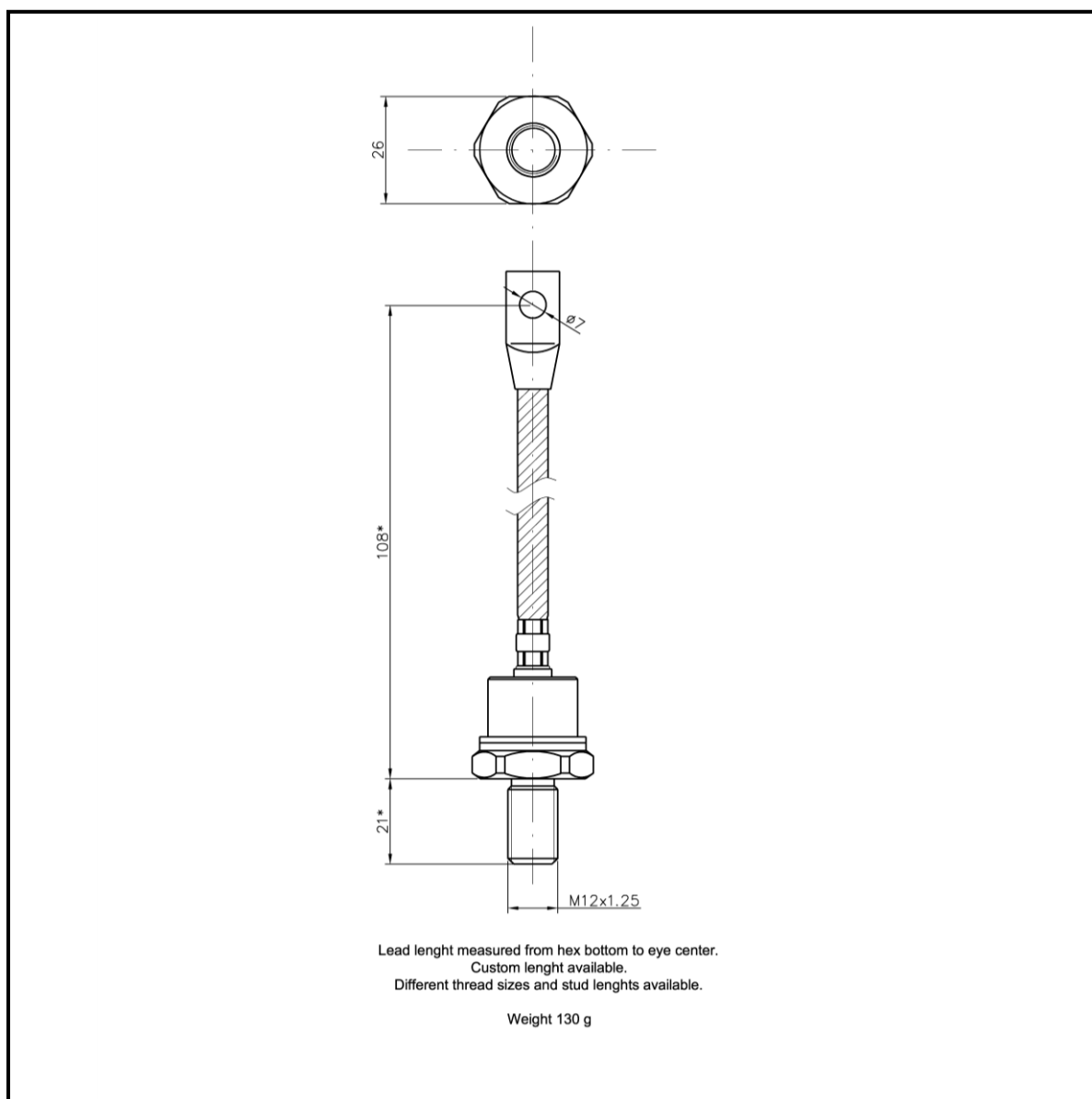
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## Diode

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### Package details



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

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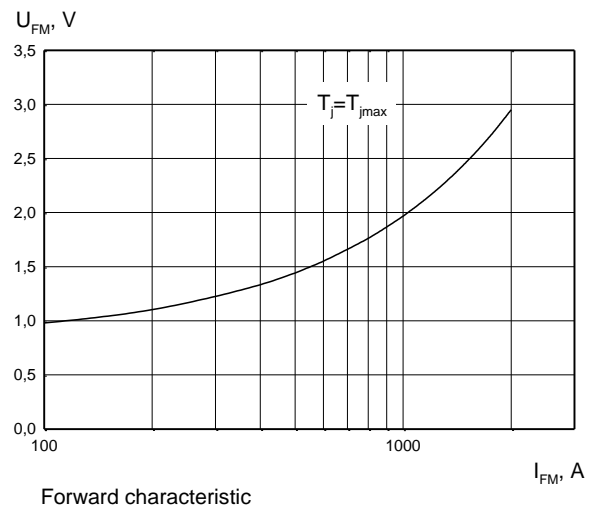
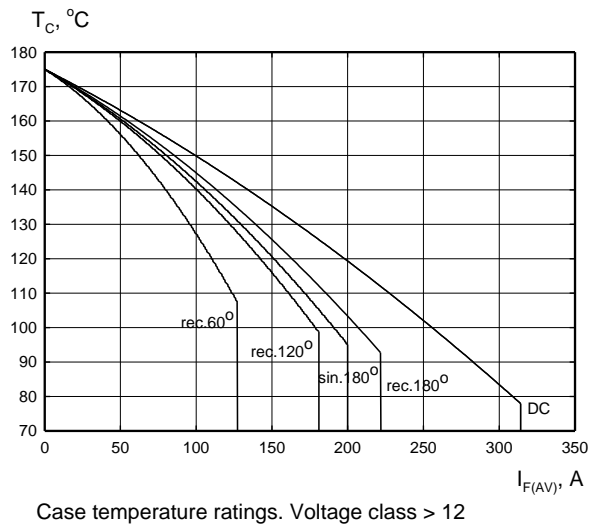
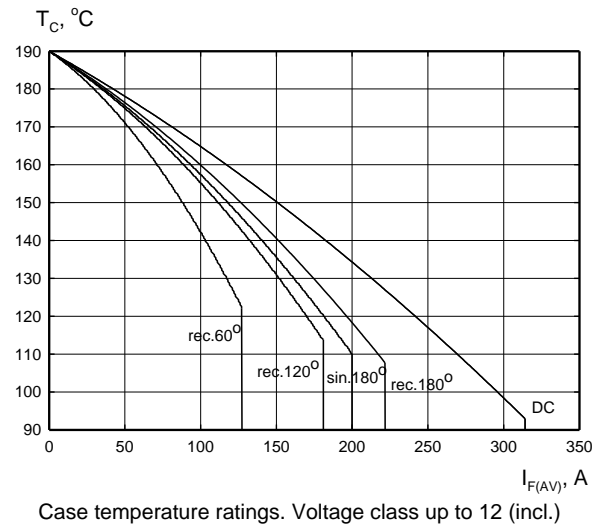
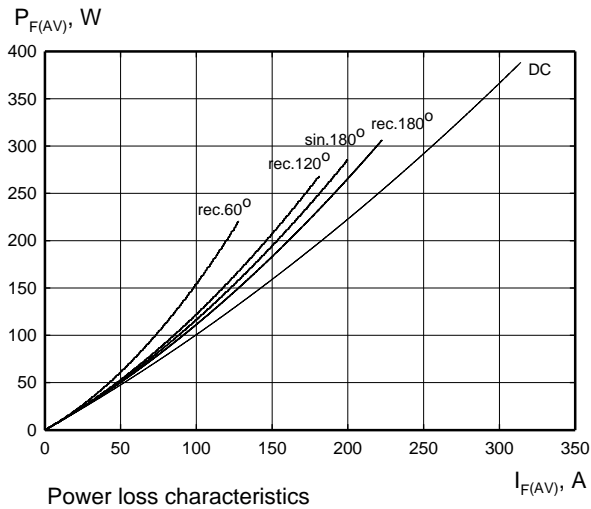
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# D52-200

## Diode

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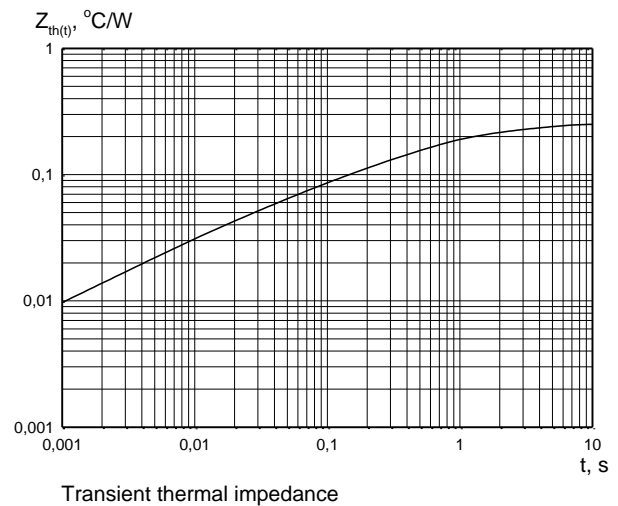
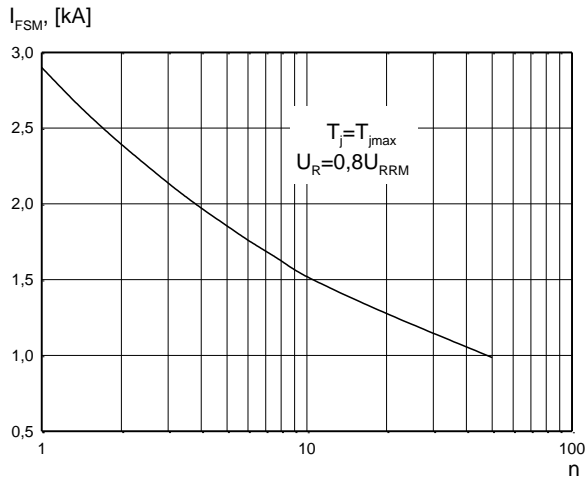
### CHARACTERISTICS



# D52-200

## Diode

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## HEATSINKS

LAMINA S.I. has its own proprietary range of extruded aluminium heatsinks designed to optimise the performance of our semiconductors with natural and forced air flow.

## POWER ASSEMBLY CAPABILITY

LAMINA S.I. provides a support for those customers requiring more than a basic semiconductor and offers precisely assembled Power Blocks according to factory or customer standards.