

Diode type DB5-7000 are of modern design with pressure contacts, high alumina ceramic insulator and cold-welding encapsulation. Designed for use in power rectifying circuits and equipment under normal operating conditions.

KEY PARAMETERS

U_{RRM}	up to 1600 V
$I_{F(AV)}$	7200 A
I_{FSM}	75000 A

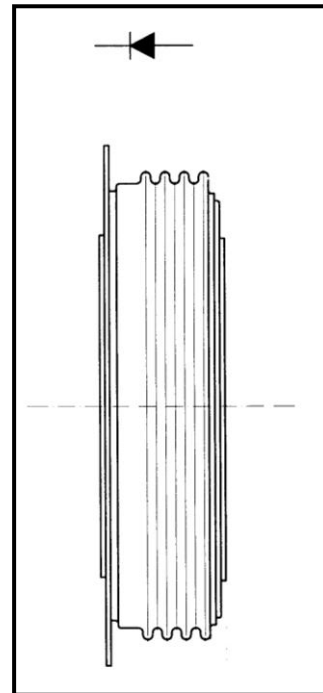
FEATURES

- all diffused design
- high current capabilities
- high surge current capabilities
- high rated voltages
- low thermal impedance
- tested according to IEC standards

APPLICATION

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

Outline type code: JEDEC DO-200AE
See Package Details for further information



Designed for use in high power industrial and commercial electronic circuits and equipment where high currents are encountered and high reliability is essential. Low forward voltages let minimize energy loss.

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.

DB5-7200-□□

voltage class (hundreds of volts)

ELECTRICAL PARAMETERS

Voltage ratings

Voltage class	V_{RRM}	V_{RSM}	I_{RRM}
	V	V	mA
12	1200	1300	100
14	1400	1500	
16	1600	1700	

Electrical properties

Parameter	Unit	Test conditions	Value	
Average forward current @ case temperature	$I_{F(AV)}$	A	7200	
	T_c	°C	85	
RMS forward current	$I_{F(RMS)}$	A	11300	
Surge current	I_{FSM}	$T_j=190^{\circ}C, V_R=0,8V_{RRM}, t_p=10ms$	68000	
		$T_j=190^{\circ}C, V_R=0, t_p=10ms$	75000	
I^2t – value	I^2t	$T_j=190^{\circ}C, V_R=0,8V_{RRM}, t_p=10ms$	23100	
		$T_j=190^{\circ}C, V_R=0, t_p=10ms$	28000	
Forward voltage drop max.	U_{FM}	V	$T_j=190^{\circ}C, I_{FM}=4000A$	0,90
Threshold voltage	$U_{F(T0)}$	V	$T_j=190^{\circ}C; 0,15Ifm - \pi Ifm$	0,704
Slope resistance	r_F	mΩ	$T_j=190^{\circ}C; 0,15Ifm - \pi Ifm$	0,0479
Reverse recovery time	t_{rr}	μs	$T_j=25^{\circ}C, I_{FM}=2000A, di_R/dt=25A/\mu s$	25

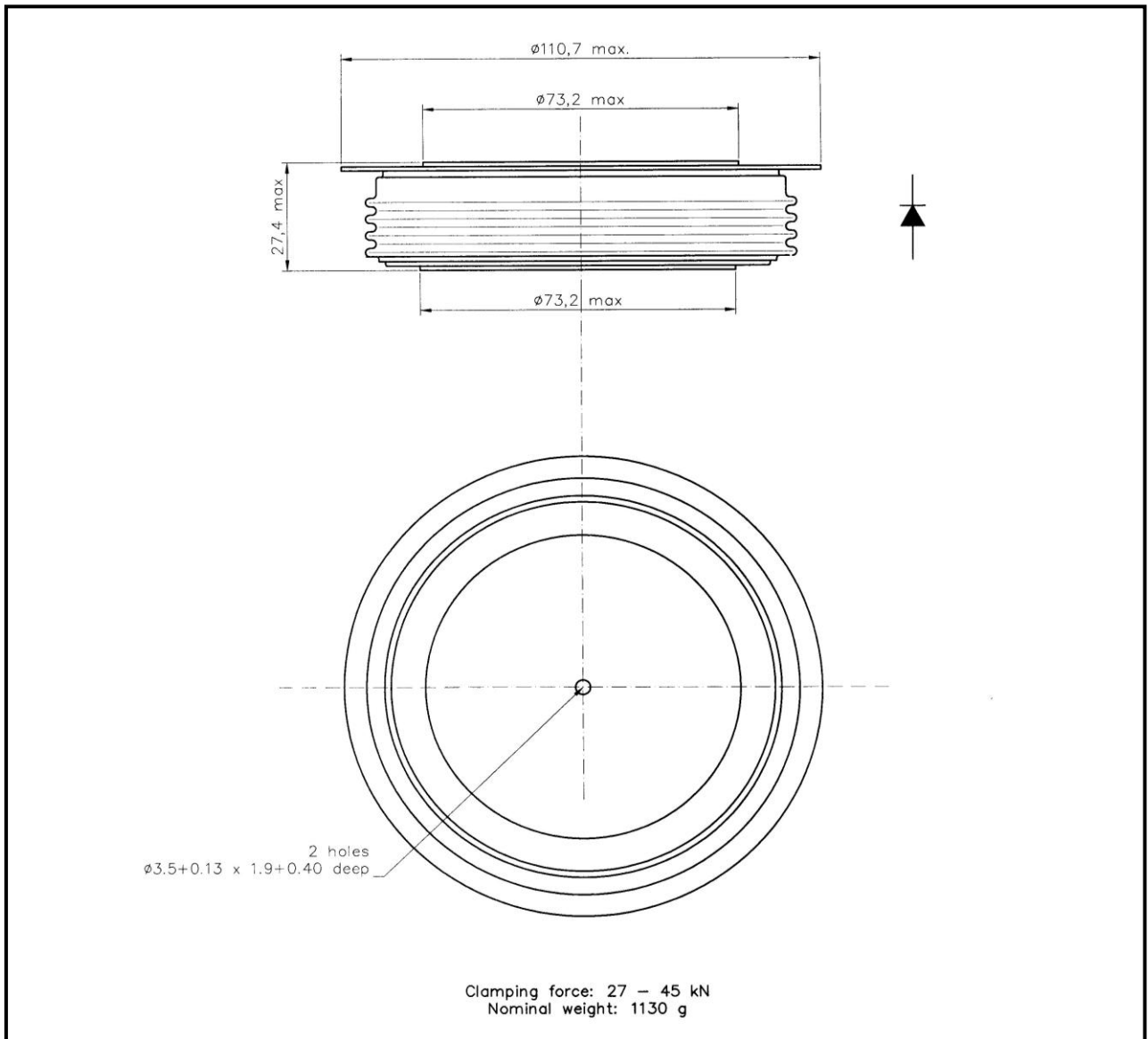
Thermal properties

Parameter	Unit	Test conditions	Value	
Thermal resistance, junction to case	R_{thJC}	°C/W	two sided, DC	0,0095
Thermal resistance, case to heatsink	R_{thCS}	°C/W	two sided	0,002
Operating junction temperature	$T_{jmin} \dots T_{jmax}$	°C		-40...+190
Storage temperature	T_{stg}	°C		-40...+175

Mechanical properties

Parameter	Unit	Value	
Clamping force	F_M	kN	27 ... 45
Weight	m	g	1130

Package details



For further package information, please contact Sales & Marketing Department. All dimensions in mm, unless stated otherwise.

Do not scale.

HEATSINKS

KUBARA LAMINA SA has its own proprietary range of extruded aluminium heatsinks designed to optimise the performance of our semiconductors with natural and forced air flow. High efficiency water cooled copper heatsinks are also available.

DEVICE CLAMPS

Disc devices require the correct clamping force to ensure their best operation.

KUBARA LAMINA SA offers a wide selection of clamps to suit all of our manufactured devices.

POWER ASSEMBLY CAPABILITY

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