

Diode type D42 are design for use in power rectifying circuits under normal operating conditions.

KEY PARAMETERS

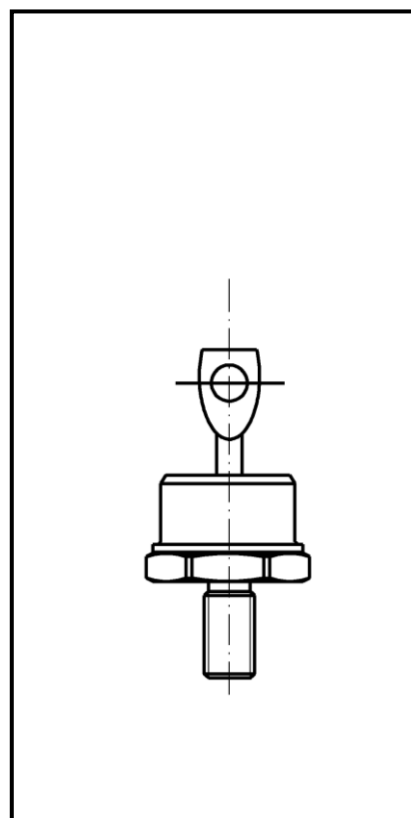
U_{RRM}	up to 1400 V
$I_{F(AV)}$	40 A
I_{FSM}	600 A

FEATURES

- all diffused design
- high current capabilities
- high surge current capabilities
- compact size and small weight
- tested according to IEC standards

APPLICATION

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



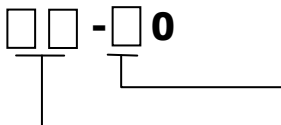
Outline type code: DO-5

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.

D42-40- - **0**



Polarization code: N or R

voltage class (hundreds of volts)

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ELECTRICAL PARAMETERS

Voltage ratings

Voltage class	U_{RRM}	I_{RRM}
	V	mA
01	100	6
02	200	
04	400	
06	600	
08	800	
10	1000	
12	1200	
14	1400	

Electrical properties

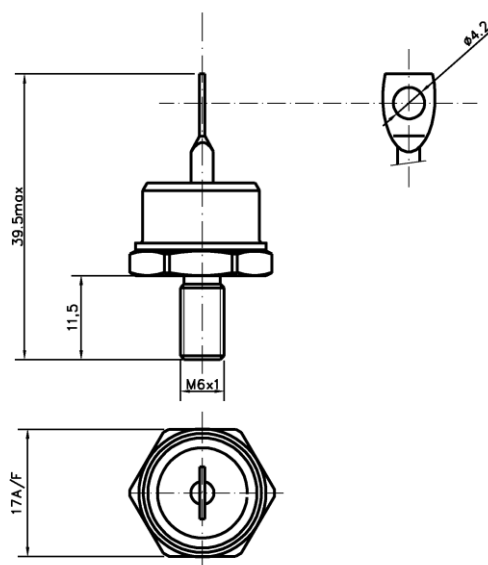
Parameter		Unit	Test conditions	Value
Average forward current @ case temperature	$I_{F(AV)}$	A		40
	T_c	°C		95
RMS forward current	$I_{F(RMS)}$	A		62,8
Surge current	I_{FSM}	A		600
I^2t – value	I^2t	kA ² s	$T_J = T_{JMAX}$	1,80
Forward voltage drop max.	U_{FM}	V	$T_J = 25^\circ\text{C}$, $I_{FM} = 100\text{A}$	1,40
Threshold voltage	$U_{F(T0)}$	V	$T_J = T_{Jmax}$	1,00
Slope resistance	r_F	mΩ		4,0

Thermal properties

Parameter		Unit	Test conditions	Value
Thermal resistance, junction to case	R_{thJC}	°C/W	two sided, DC	0,90
Operating junction temperature	$T_{Jmin} \dots T_{Jmax}$	°C		-25...+150
Storage temperature	T_{stg}	°C		-25...+150

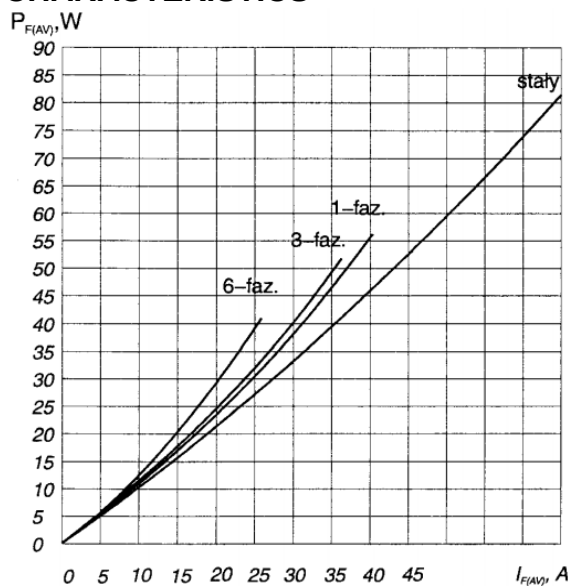
Mechanical properties

Parameter		Unit	Value
Mounting torque	F_M	Nm	2,0 – 2,5
Weight	m	g	18

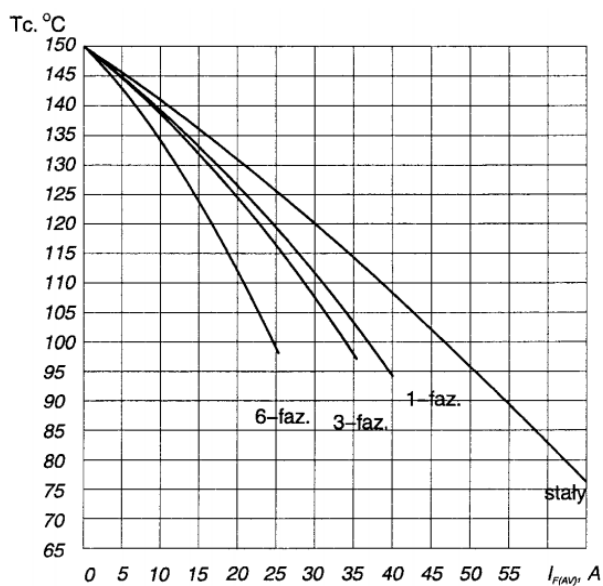


For further package information, please contact Sales & Marketing Department. All dimensions in mm, unless stated otherwise.
Do not scale.

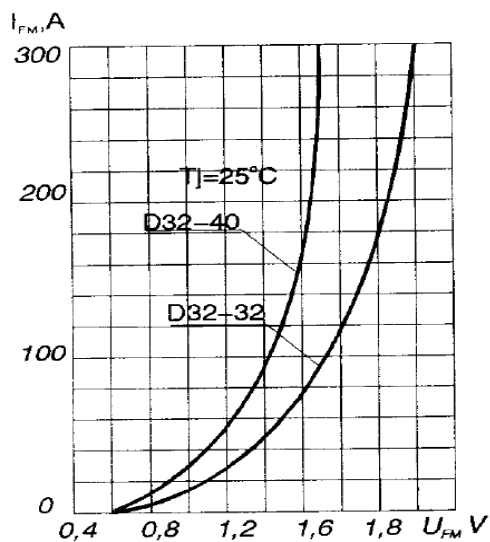
CHARACTERISTICS



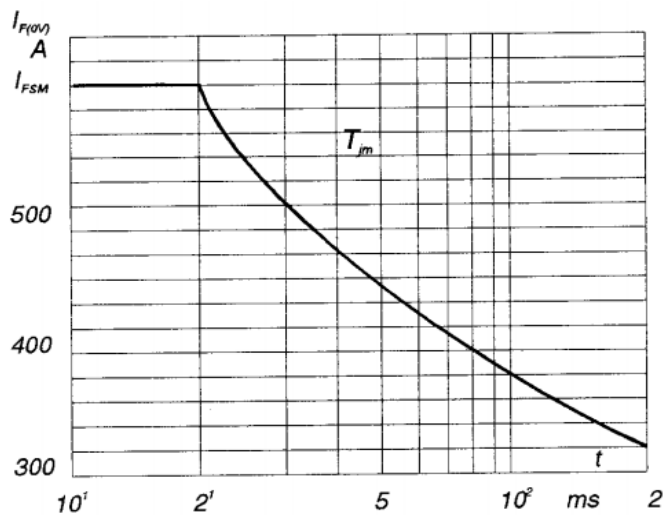
Maximum power dissipation vs. forward current.
Sinusoidal waveform.



Maximum case temperature vs. forward current.
Sinusoidal waveform



Forward characteristic.



Maximum overload characteristic.