

## Thyristor/Diode module PSKH 42M

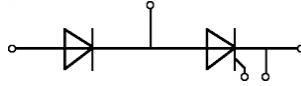
$$I_{T(RMS)} = 2 \times 63 \text{ A}$$

$$I_{T(AV)} = 2 \times 40 \text{ A}$$

$$V_{RRM} = 800-1800 \text{ V}$$

Preliminary Data Sheet

$V_{RSM}$ V	$V_{RRM}$ V	Type
900	800	PSKH 42M/08
1100	1000	PSKH 42M/10
1300	1200	PSKH 42M/12
1500	1400	PSKH 42M/14
1700	1600	PSKH 42M/16
1900	1800	PSKH 42M/18



Symbol	Test Conditions	Maximum Ratings
$I_{T(RMS)}$	$T_{VJ} = T_{VJM}$	63 A
$I_{T(AV)}$	$T_C = 85^\circ\text{C}$	40 A
$I_{TSM}$	$T_{VJ} = 125^\circ\text{C}$ $t = 10 \text{ ms}$ half sine	900 A
$\int i^2 dt$	$T_{VJ} = 125^\circ\text{C}$ $t = 10 \text{ ms}$ half sine	4,05 A <sup>2</sup> s*10 <sup>3</sup>
$(di/dt)_{cr}$	$T_{VJ} = T_{VJM}$ $t_r \leq 0,5\mu\text{s}$ gate source 1,5A	200 A/ $\mu\text{s}$
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM}$ $V_{DM}=2/3V_{DRM}$	1000 V/ $\mu\text{s}$
$T_{VJ}$		-40 ... + 125 °C
$T_{VJM}$		125 °C
$T_{stg}$		-40 ... + 125 °C
$V_{ISOL}$	50 HZ, RMS $t = 1 \text{ min}$ $I_{ISOL} \leq 1 \text{ mA}$	min. 3000 V ~
$M_d$	Terminal connection torque (M5)	4,0 Nm
	Mounting torque (M6)	6,0 Nm
Weight	typ.	160 g

### Features

- Isolated mounting base 3000V~
- Pressure contact technology with increased power cycling capability

### Applications

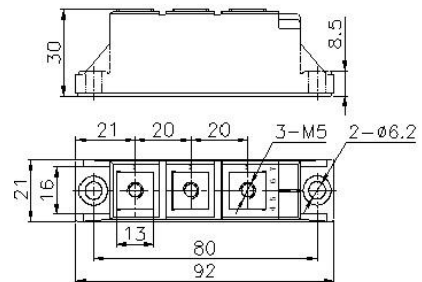
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

### Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling capability

### Package, style and outline

Dimensions in mm (1mm = 0.0394")



Symbol	Test Conditions	Characteristic Value
$I_{RRM}; I_{DRM}$	$V_R = V_{RRM}$ $T_{VJ} = 125^\circ\text{C}$ $V_D = V_{DRM}$	$\leq 8 \text{ mA}$
$V_{TM}$	$I_T = 120 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	$\leq 1,6 \text{ V}$
$V_{TO}$	For power-loss calculations only	0,85 V
$r_t$	$T_{VJ} = T_{VJM}$	5,57 m $\Omega$
$I_{GT}$		30-100 mA
$V_{GT}$	$V_A = 12 \text{ V}$ $T_{VJ} = 25^\circ\text{C}$ $I_A = 1 \text{ A}$	0,8-2,5 V
$I_H$		20-120 mA
$V_{GD}$	$V_{DM}=2/3V_{DRM}$ $T_{VJ} = 125^\circ\text{C}$	0,2 V
$R_{th(j-c)}$	Per chip; Single side cooled	0,65 °C/W