

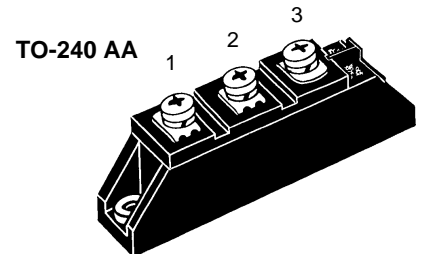
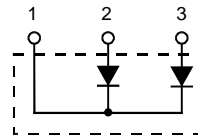
# Fast Recovery Epitaxial Diode (FRED) Module

MEK 150-04 DA

$V_{RRM} = 400 \text{ V}$   
 $I_{FAV} = 150 \text{ A}$   
 $t_{rr} = 300 \text{ ns}$

Preliminary data

$V_{RSM}$ V	$V_{RRM}$ V	Type
400	400	MEK 150-04DA



Symbol	Conditions	Maximum Ratings	
$I_{FRMS}$	$T_C = 100^\circ\text{C}$ ; rectangular, $d = 0.5$	200	A
$I_{FAVM}$		150	A
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C}$ ; $t = 10 \text{ ms}$ (50 Hz), sine	1200	A
$T_{VJ}$	$T_C = 25^\circ\text{C}$	-40...+150	$^\circ\text{C}$
$T_{VJM}$		175	$^\circ\text{C}$
$T_{stg}$		-40...+150	$^\circ\text{C}$
$P_{tot}$	$T_C = 25^\circ\text{C}$	360	W
$V_{ISOL}$	50/60 Hz, RMS; $I_{ISOL} \leq 1 \text{ mA}$	3600	V~
$M_d$	Mounting torque with screw M5 Terminal connection torque	2.5-4/22-35 2.5-4/22-35	Nm/lb.in. Nm/lb.in.
Weight	typical	90	g

Symbol	Conditions	Characteristic Values		
		typ.	max.	
$I_R$	$T_{VJ} = 25^\circ\text{C}$ $V_R = V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$ $V_R = V_{RRM}$		2.0 8.5	mA mA
$V_F$	$I_F = 300 \text{ A}$ ; $T_{VJ} = 150^\circ\text{C}$ $T_{VJ} = 25^\circ\text{C}$		1.4 1.6	V V
$R_{thJC}$ $R_{thCH}$		0.08	0.35	K/W K/W
$I_{RM}$	$V_R = 100 \text{ V}$ ; $I_F = 200 \text{ A}$ ; $-di_F/dt = 100 \text{ A}/\mu\text{s}$ $T_{VJ} = 100^\circ\text{C}$	11	14	A

## Features

- International standard package with DCB ceramic base plate
- Planar passivated chips
- Short recovery time
- Low switching losses
- Soft recovery behaviour
- Isolation voltage 3600 V~
- UL registered E 72873

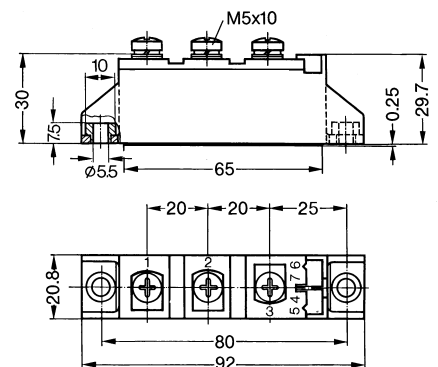
## Applications

- Antiparallel diode for high frequency switching devices
- Free wheeling diode in converters and motor control circuits
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners and welders

## Advantages

- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

## Dimensions in mm (1 mm = 0.0394")



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