

# MDC90 MDA90 MDK90 MD90 Diode Modules

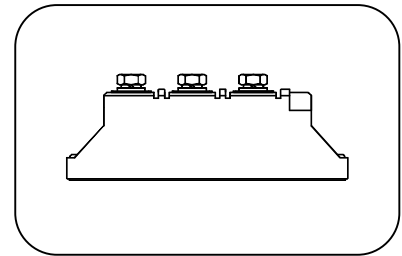
**Features:**

- n Isolated mounting base 3600V~
- n Pressure contact technology with Increased power cycling capability
- n Space and weight savings

**Typical Applications**

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

$I_{F(AV)}$	<b>90A</b>
$V_{RRM}$	<b>1900~3000V</b>
$I_{FSM}$	<b><math>2.3A \times 10^3</math></b>
$I^2t$	<b><math>26.9A^2 S \cdot 10^3</math></b>



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Single side cooled, $T_c=100^{\circ}C$	150			90	A
$I_{F(RMS)}$	RMS forward current		150			141	A
$V_{RRM}$	Repetitive peak reverse voltage	$V_{RRM}$ tp=10ms $V_{RSM} = V_{RRM} + 200V$	150	1900		3000	V
$I_{RRM}$	Repetitive peak current	at $V_{RRM}$	150			10	mA
$I_{FSM}$	Surge forward current	10ms half sine wave	150			2.30	KA
$I^2t$	$I^2T$ for fusing coordination	$V_R = 0.6V_{RRM}$				26.9	$A^2s \cdot 10^3$
$V_{FO}$	Threshold voltage		150			0.85	V
$r_F$	Forward slop resistance					1.88	mΩ
$V_{FM}$	Peak forward voltage	$I_{FM} = 270A$	25			1.43	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine Single side cooled				0.450	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink	At 180° sine Single side cooled				0.2	$^{\circ}C/W$
$V_{iso}$	Isolation voltage	50Hz, R.M.S, t=1min, $I_{iso}: 1mA(max)$		3600			V
$F_m$	Terminal connection torque (M5)				4		N·m
	Mounting torque (M6)				6		N·m
$T_{stg}$	Stored temperature			-40		125	$^{\circ}C$
$W_t$	Weight				115		g
<b>Outline</b>	215F3						

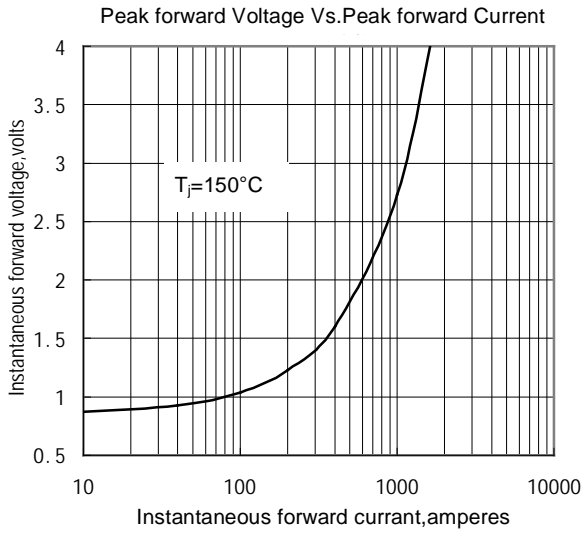


Fig.1

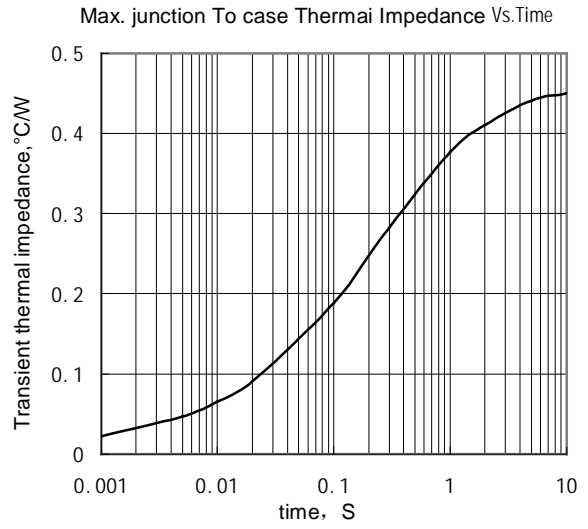


Fig.2

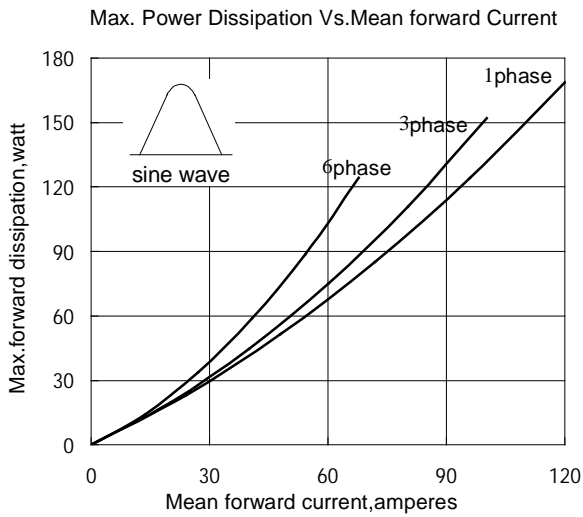


Fig.3

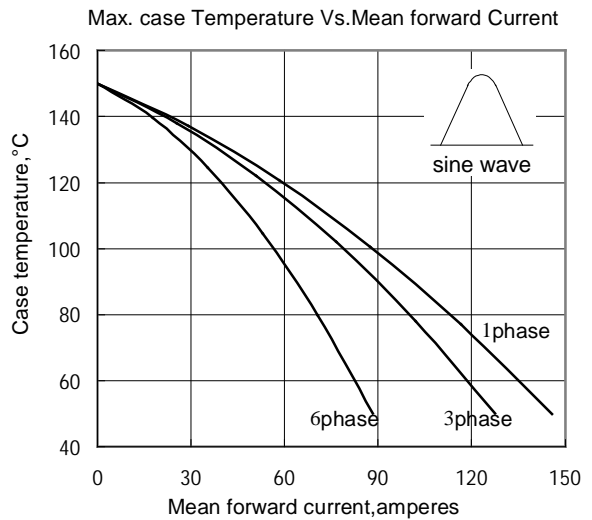


Fig.4

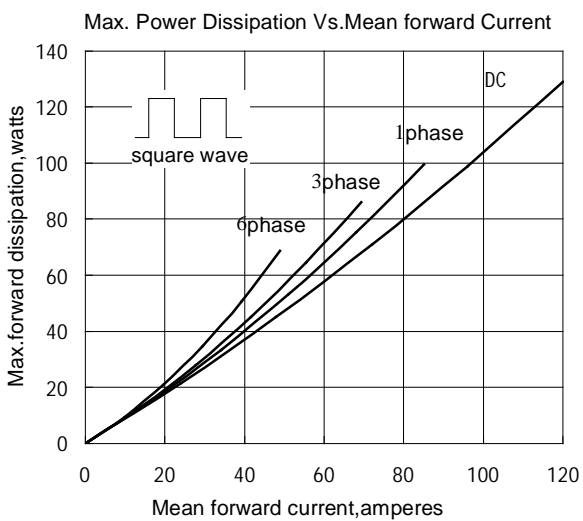


Fig.5

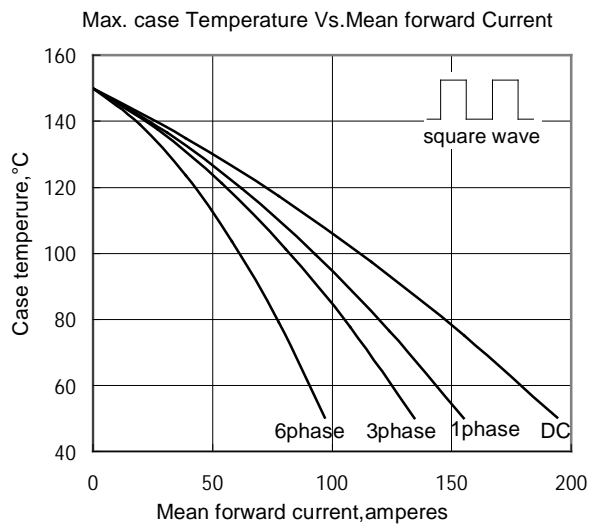
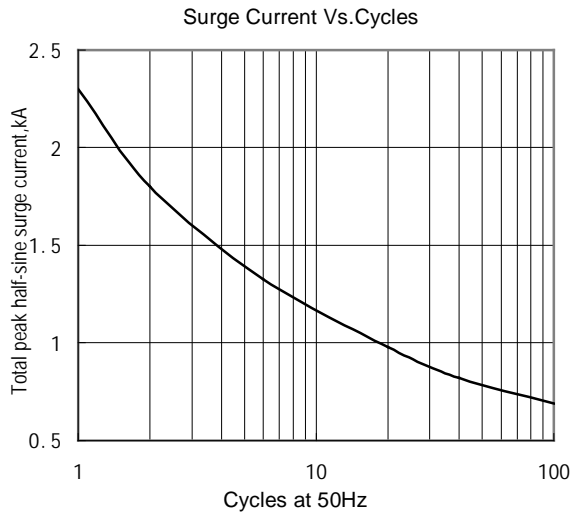
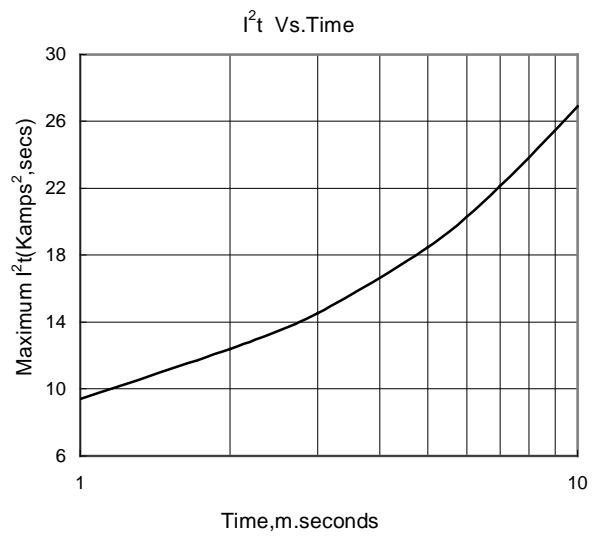


Fig.6



**Fig.7**



**Fig.8**

**Outline:**

