

**Features:**

- Isolated mounting base 4000V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

**Typical Applications**

- Various rectifiers
- DC supply for PWM inverter

V <sub>RRM</sub>	Type & Outline		
	MDx350-26-415F3	MDx350-28-415F3	MDx350-30-415F3
2600V			MDx350-32-415F3
2800V			MDx350-34-415F3
3000V			MDx350-36-415F3
3200V			MDx350-36-415F3G
3400V			
3600V			
3600V			

MDx stands for any type of **MDC**, **MDA**, **MDK**

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>F(AV)</sub>	Mean forward current	180° half sine wave 50Hz Single side cooled, T <sub>c</sub> =100°C	150			350	A
I <sub>F(RMS)</sub>	RMS forward current					550	A
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	150			35	mA
I <sub>FSM</sub>	Surge forward current	V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine	150			11	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					605	10 <sup>3</sup> A <sup>2</sup> s
V <sub>FO</sub>	Threshold voltage		150			0.87	V
r <sub>F</sub>	Forward slope resistance					0.50	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =1050A	25			1.75	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Single side cooled per chip				0.11	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	Single side cooled per chip				0.04	°C/W
V <sub>iso</sub>	Isolation voltage	50Hz,R.M.S,t=1min,I <sub>iso</sub> :1mA(MAX)		4000			V
F <sub>m</sub>	Terminal connection torque(M10)			10		12	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T <sub>vj</sub>	Junction temperature			-40		150	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				1260		g
Outline				415F3			

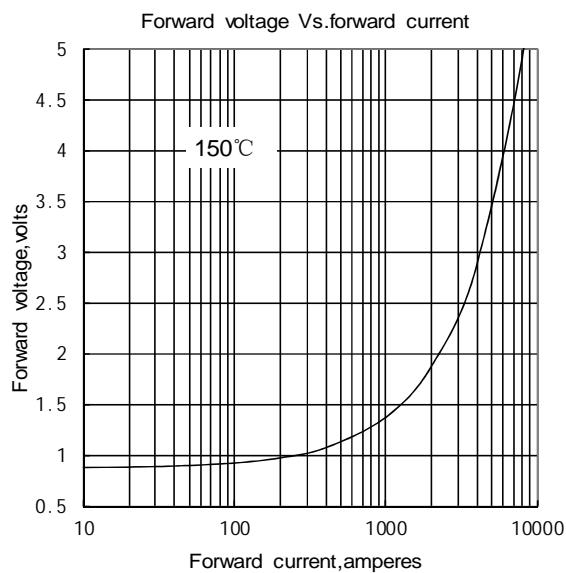


Fig.1

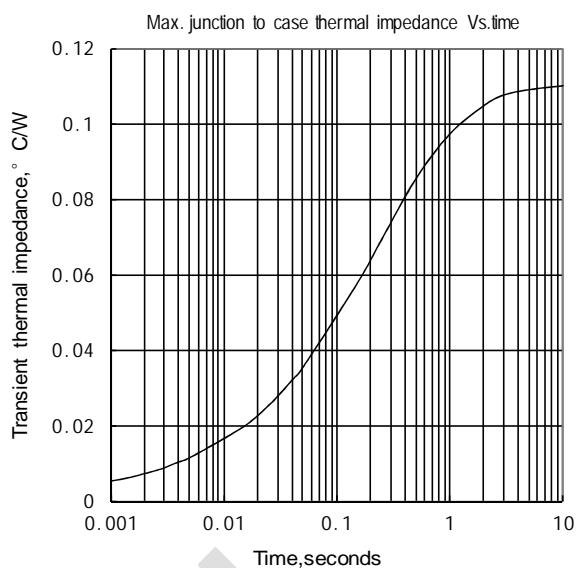


Fig.2

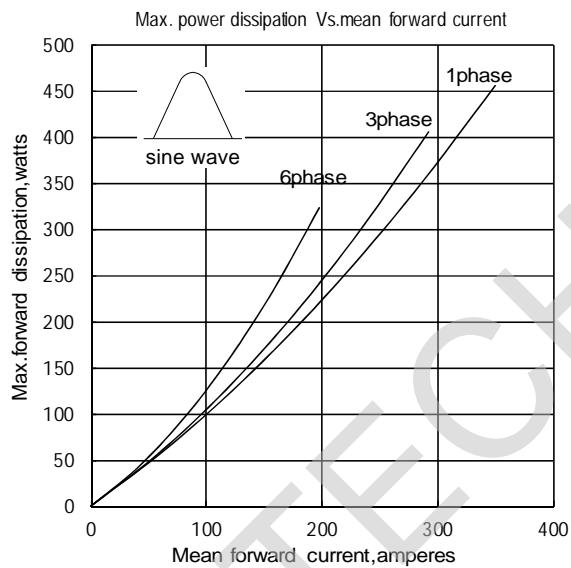


Fig.3

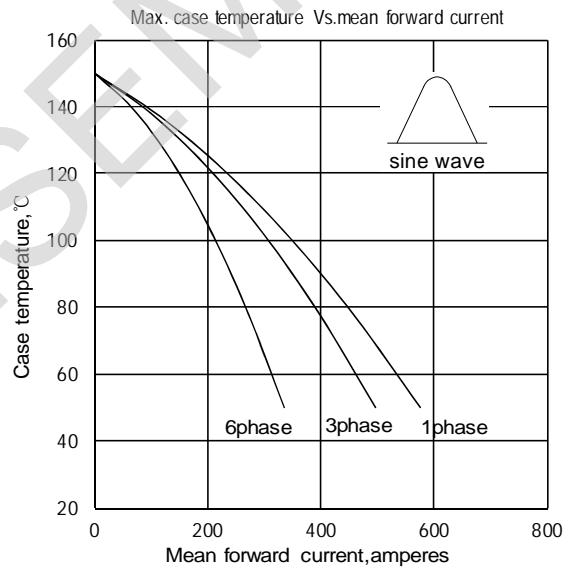


Fig.4

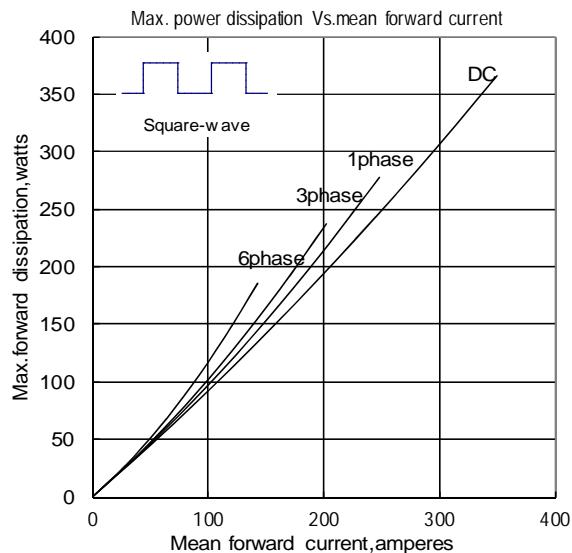


Fig.5

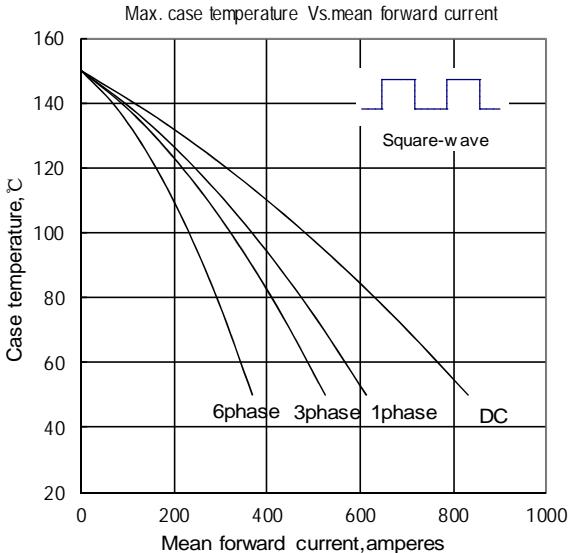


Fig.6

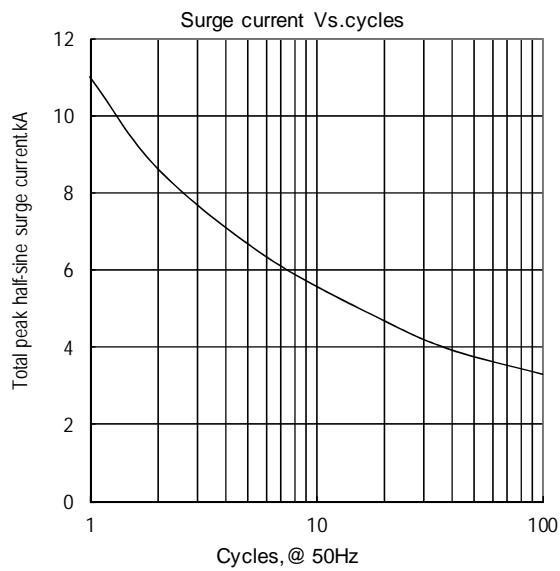


Fig.7

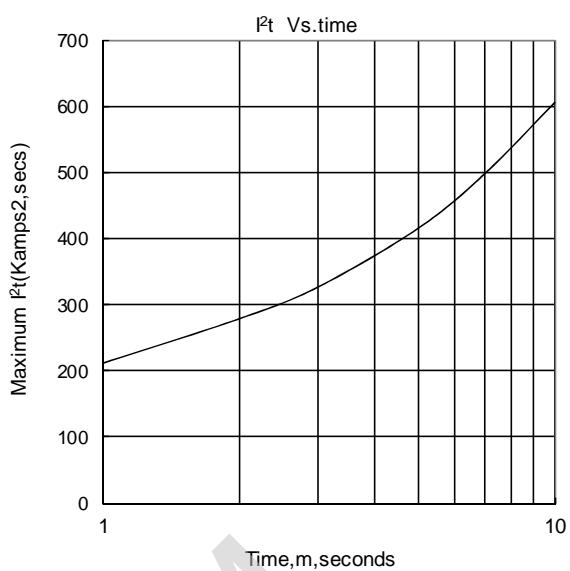
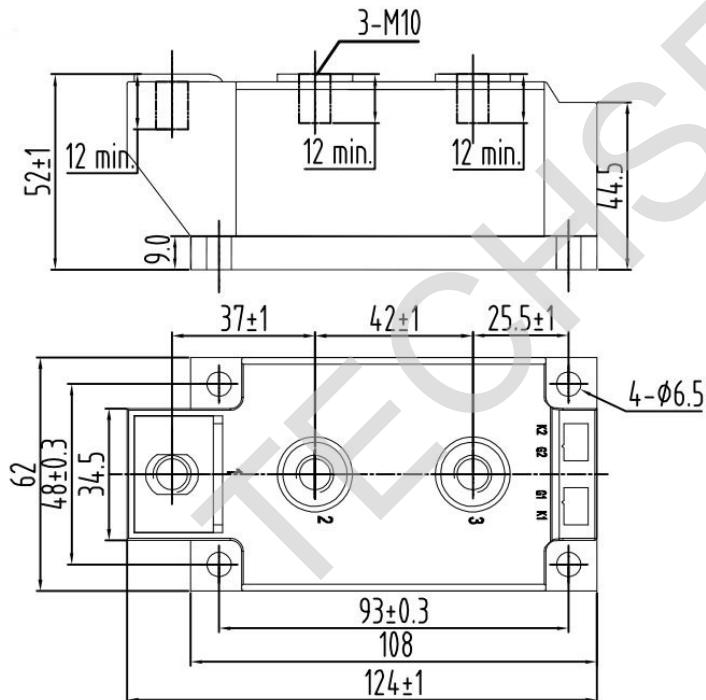
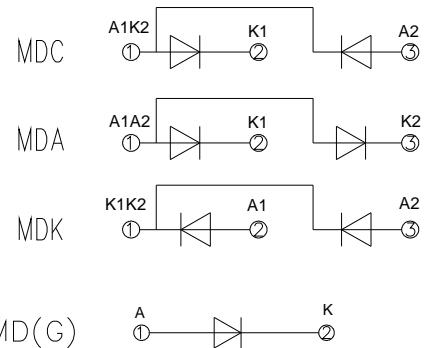


Fig.8

**Outline:**Unmarked dimensional tolerance:  $\pm 0.5\text{mm}$ 

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- Typical Applications**
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V <sub>RRM</sub>	Type & Outline		
	MDx500-26-410F3	MDx500-28-410F3	MDx500-30-410F3
2600V			
2800V			
3000V			
3200V			
3400V			
3600V			
3600V	MD500-36-410F3G		

MDx stands for any type of **MDC**, **MDA**, **MDK**

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>J</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>F(AV)</sub>	Mean forward current	180° half sine wave 50Hz Single side cooled, T <sub>C</sub> =100°C	150			500	A
I <sub>F(RMS)</sub>	RMS forward current					785	A
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	150			50	mA
I <sub>FSM</sub>	Surge forward current	V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine	150			15	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					1125	10 <sup>3</sup> A <sup>2</sup> s
V <sub>FO</sub>	Threshold voltage		150			0.85	V
r <sub>F</sub>	Forward slope resistance					0.50	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =1500A	25			1.85	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Single side cooled per chip				0.060	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	Single side cooled per chip				0.024	°C/W
V <sub>iso</sub>	Isolation voltage	50Hz,R.M.S,t=1min,I <sub>iso</sub> :1mA(MAX)		4000			V
F <sub>m</sub>	Terminal connection torque(M12)			12		16	N·m
	Mounting torque(M8)			10		12	N·m
T <sub>vj</sub>	Junction temperature			-40		150	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				3310		g
Outline				410F3			

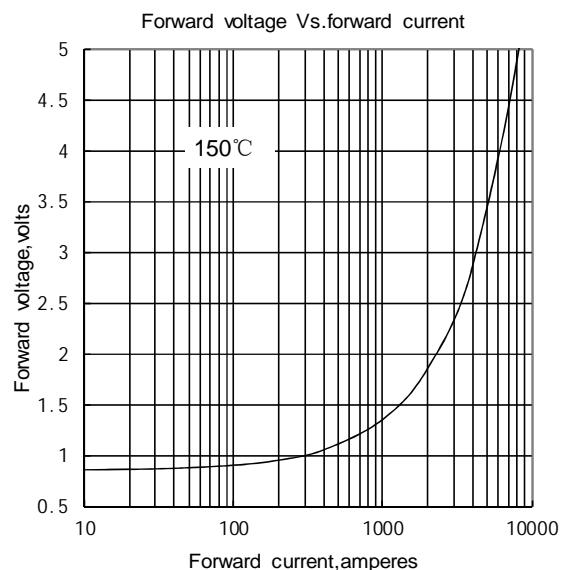


Fig.1

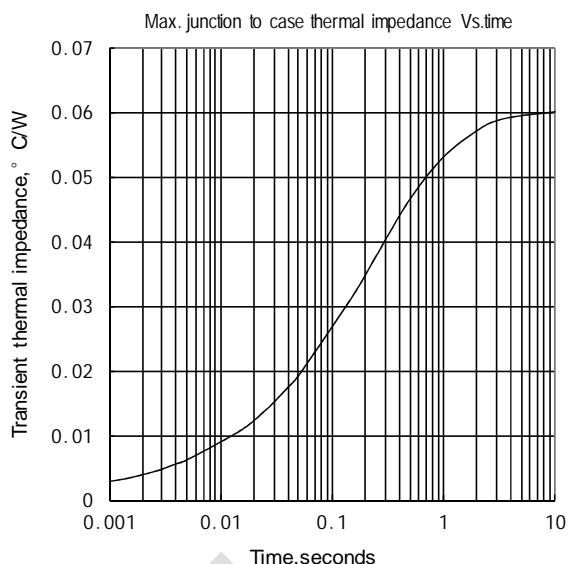


Fig.2

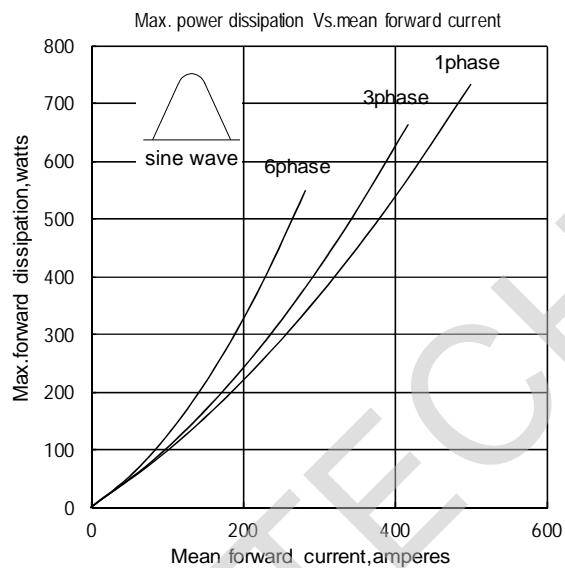


Fig.3

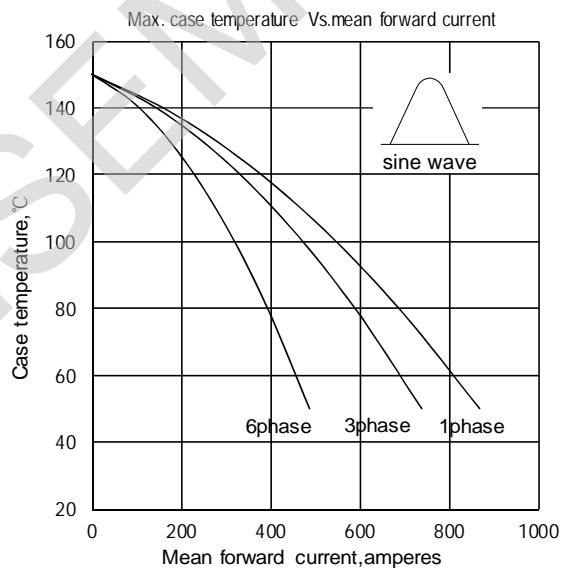


Fig.4

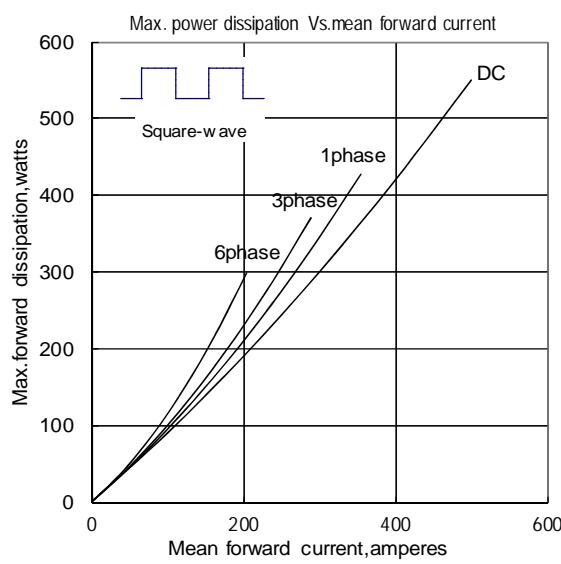


Fig.5

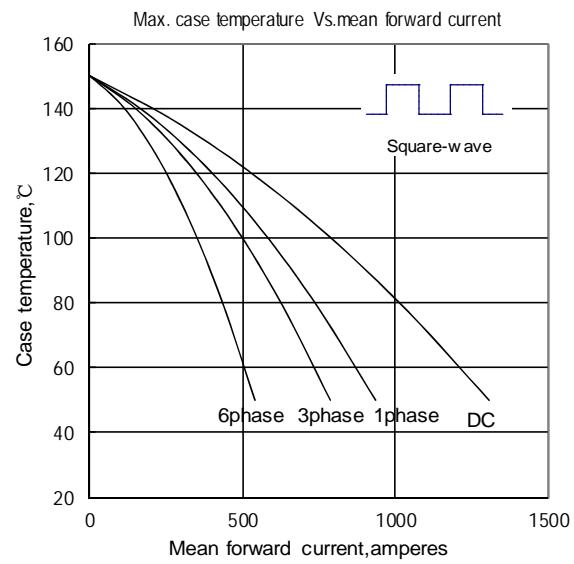


Fig.6

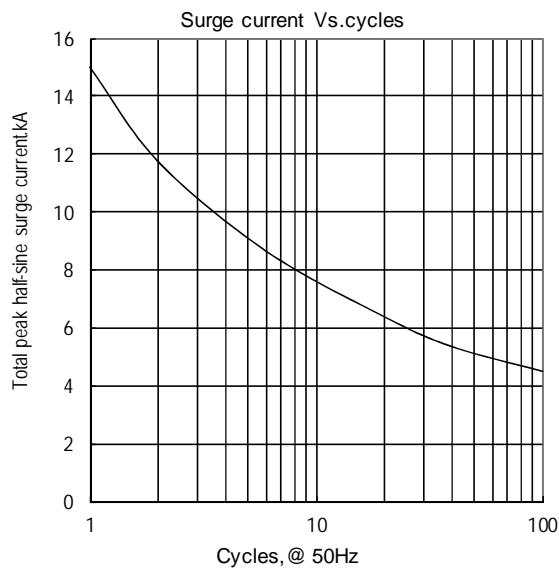


Fig.7

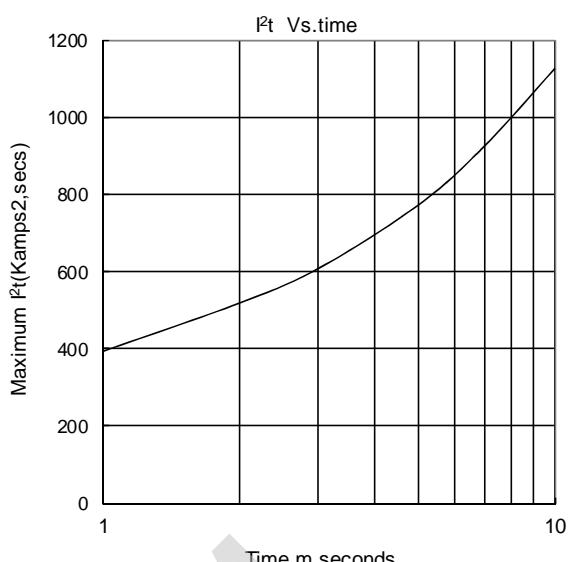
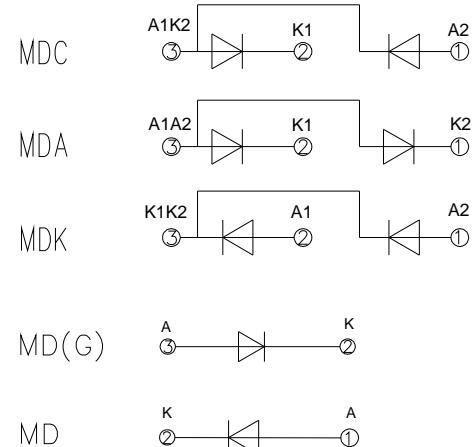
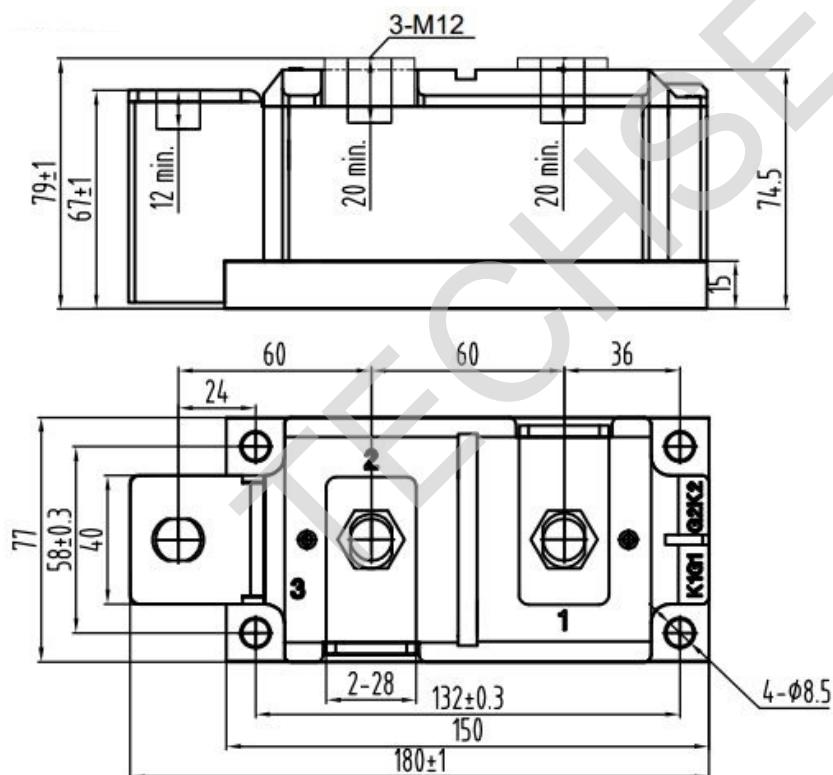


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  - Space and weight saving
- Typical Applications**
- Various rectifiers
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<b>V<sub>RRM</sub></b>	<b>Type &amp; Outline</b>		
	Min	Type	Max
2600V		MDx600-26-410F3	
2800V		MDx600-28-410F3	
3000V		MDx600-30-410F3	
3200V		MDx600-32-410F3	
3400V		MDx600-34-410F3	
3600V		MDx600-36-410F3	
3600V		MD600-36-410F3G	

MDx stands for any type of **MDC**, **MDA**, **MDK**

<b>SYMBOL</b>	<b>CHARACTERISTIC</b>	<b>TEST CONDITIONS</b>	<b>T<sub>I</sub>(°C)</b>	<b>VALUE</b>			<b>UNIT</b>
				<b>Min</b>	<b>Type</b>	<b>Max</b>	
<b>I<sub>F(AV)</sub></b>	Mean forward current	180° half sine wave 50Hz Single side cooled, T <sub>C</sub> =100°C	150			600	A
<b>I<sub>F(RMS)</sub></b>	RMS forward current					942	A
<b>I<sub>RRM</sub></b>	Repetitive peak current	at V <sub>RRM</sub>	150			50	mA
<b>I<sub>FSM</sub></b>	Surge forward current	V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine	150			17.0	kA
<b>I<sup>2</sup>t</b>	I <sup>2</sup> t for fusing coordination					1445	10 <sup>3</sup> A <sup>2</sup> s
<b>V<sub>FO</sub></b>	Threshold voltage		150			0.85	V
<b>r<sub>F</sub></b>	Forward slope resistance					0.40	mΩ
<b>V<sub>FM</sub></b>	Peak forward voltage	I <sub>FM</sub> =1800A	25			1.85	V
<b>R<sub>th(j-c)</sub></b>	Thermal resistance Junction to case	Single side cooled per chip				0.054	°C/W
<b>R<sub>th(c-h)</sub></b>	Thermal resistance case to heatsink	Single side cooled per chip				0.024	°C/W
<b>V<sub>iso</sub></b>	Isolation voltage	50Hz,R.M.S,t=1min,I <sub>iso</sub> :1mA(MAX)		4000			V
<b>F<sub>m</sub></b>	Terminal connection torque(M12)			12		16	N·m
	Mounting torque(M8)			10		12	N·m
<b>T<sub>vj</sub></b>	Junction temperature			-40		150	°C
<b>T<sub>stg</sub></b>	Stored temperature			-40		125	°C
<b>W<sub>t</sub></b>	Weight				3310		g
<b>Outline</b>				410F3			

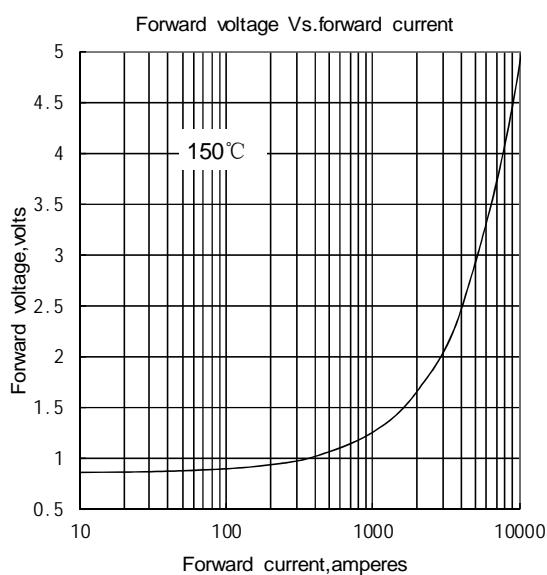


Fig.1

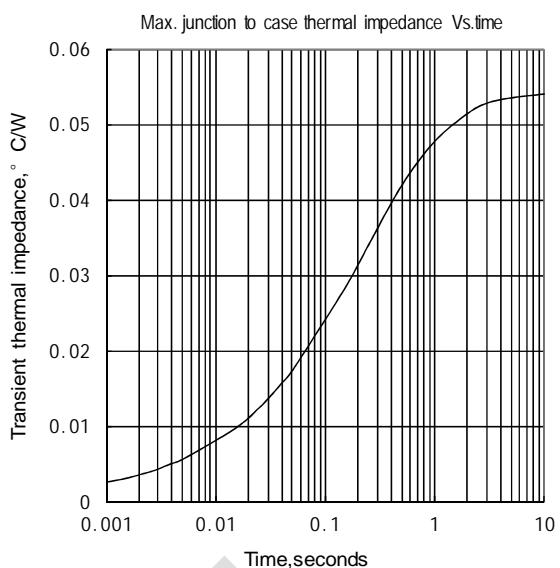


Fig.2

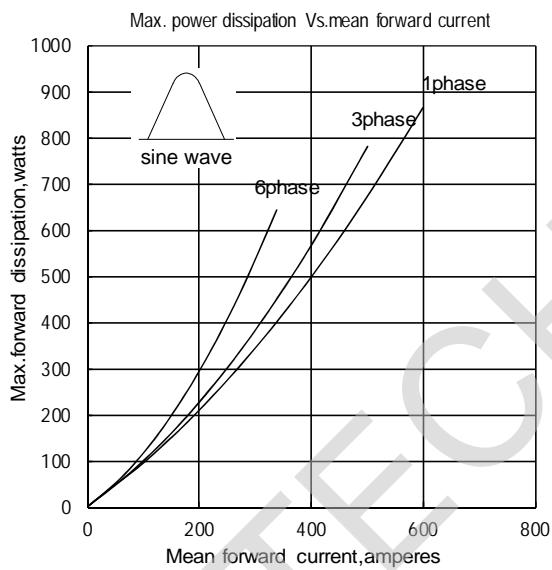


Fig.3

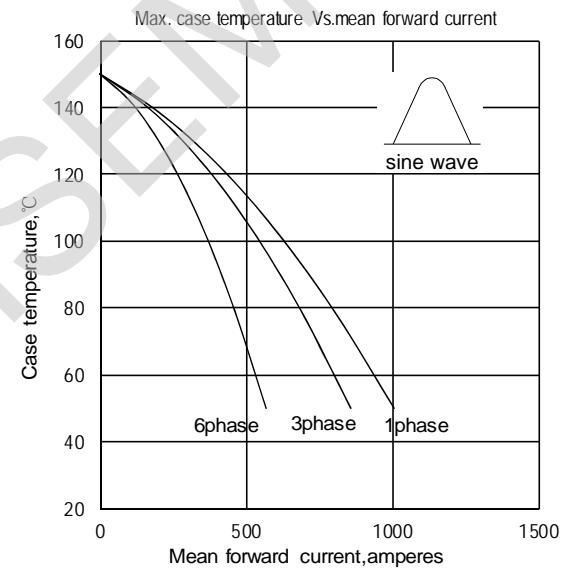


Fig.4

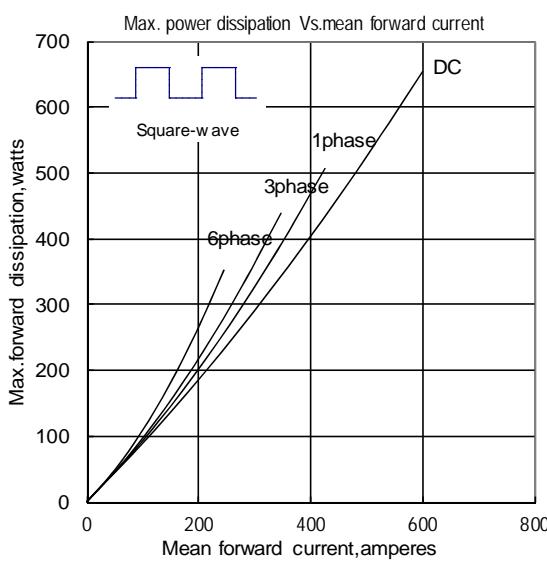


Fig.5

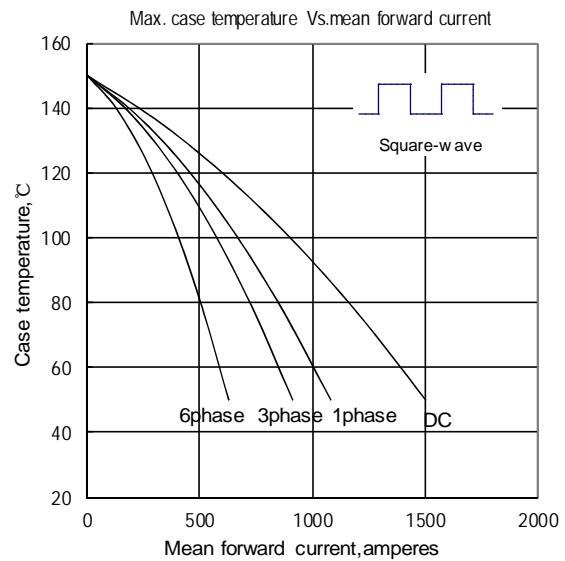


Fig.6

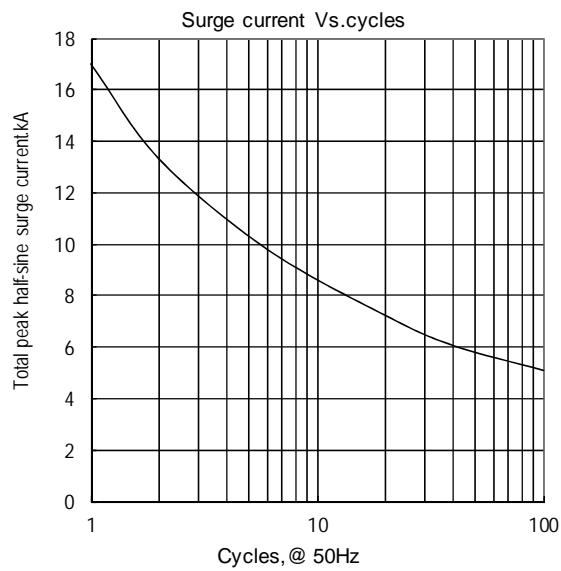


Fig.7

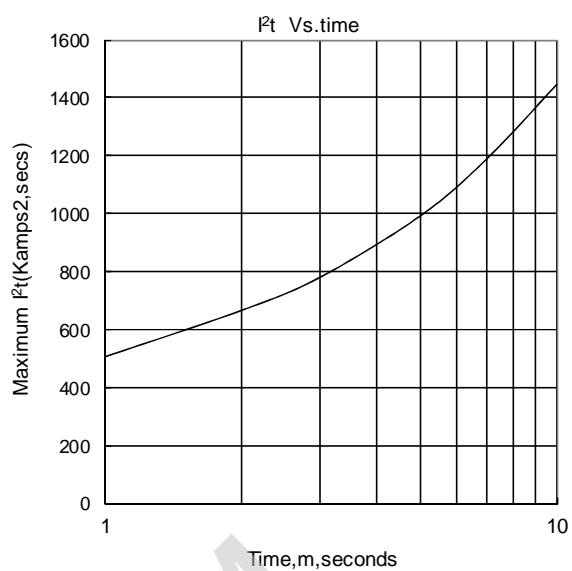


Fig.8

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