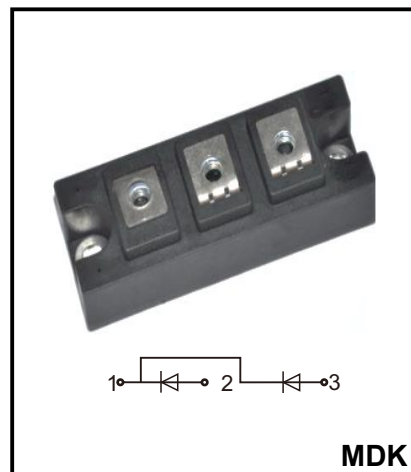


Rectifier Diode Module
Reverse Voltage : 1200 V - 1800 V
Forward Current : 200 A
Features

- ◆Industrial Standard Package
- ◆High Surge Current Capability
- ◆Low Leakage Current
- ◆Electrically Isolated by DBC Ceramic

Applications

- ◆Field Supply For DC Motors
- ◆DC supply for PWM inverter
- ◆Various Rectifiers


ABSOLUTE MAXIMUM RATINGS (Tc=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	MDK200-12	MDK200-16	MDK200-18	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage		1200	1600	1800	V
V_{RMS}	Maximum RMS voltage		1300	1700	1900	V
V_{DC}	Maximum DC Blocking Voltage		1200	1600	1800	V
$I_{F(AV)}$	Average Forward current	Single phase, half wave, 180°C conduction, Tc= 100°C	200			A
$I_{F(RMS)}$	R.M.S. Forward current		314			
I_{FSM}	Non-Repetitive Surge	1/2 cycle, 50HZ, peak value Tj=150°C	7.50			KA
	Forward current	1/2 cycle, 60HZ, peak value Tj=150°C	7.55			
I^2t	I^2t (For Fusing)	1/2 cycle, 50HZ, peak value Tj=150°C	281			KA ² S
		1/2 cycle, 60HZ, peak value Tj=150°C	265			KA ² S
T_J	Junction Temperature		-40 to +150			°C
T_{STG}	Storage Temperature Range		-40 to +125			°C
V_{ISO}	Isolation Breakdown Voltage	Ac, 50Hz(R.M.S), t=1minute	2500			V
Torque	Module-to-Sink	Recommended(M6)	6.0			N.m
Torque	Module Electrodes	Recommended(M6)	6.0			N.m
$R_{th(J-C)}$	Junction-to-case Thermal Resistance		0.210			K /W
$R_{th(C-H)}$	case-to-Heatsink Thermal Resistance		0.08			K /W
Weight			230			g

ELECTRICAL AND THERMAL CHARACTERISTICS(Tc=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RRM}	Max.Reverse Leakage current	$V_R = V_{RRM}, T_J = 150^\circ C$	-	-	12	mA
V_{FM}	Forward Voltage	$I_F = 600A$	-	-	1.35	V
V_{FO}	For power-loss calculations only			-	0.75	V
r_F	$T_J = 150^\circ C$			-	0.88	mΩ

CHARACTERISTIC CURVES

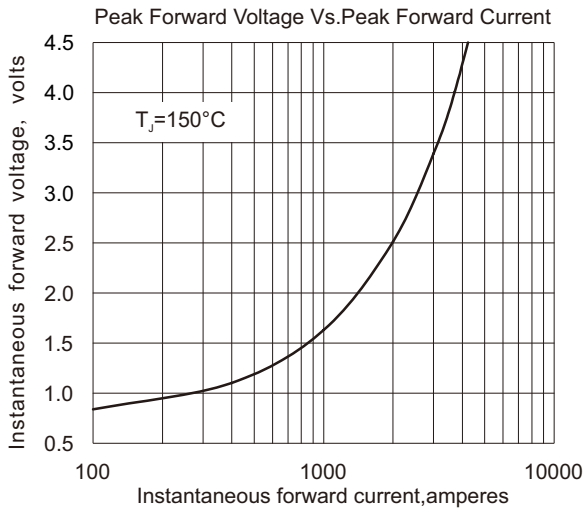


Fig.1

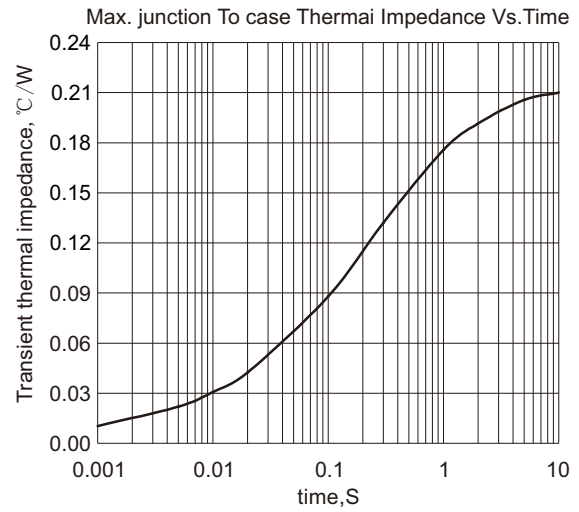


Fig.2

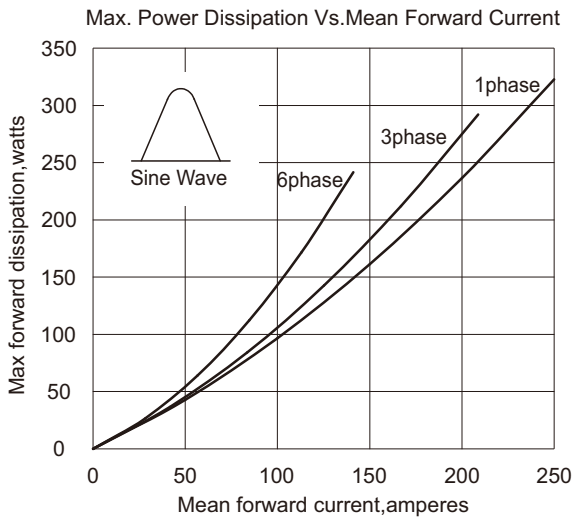


Fig.3

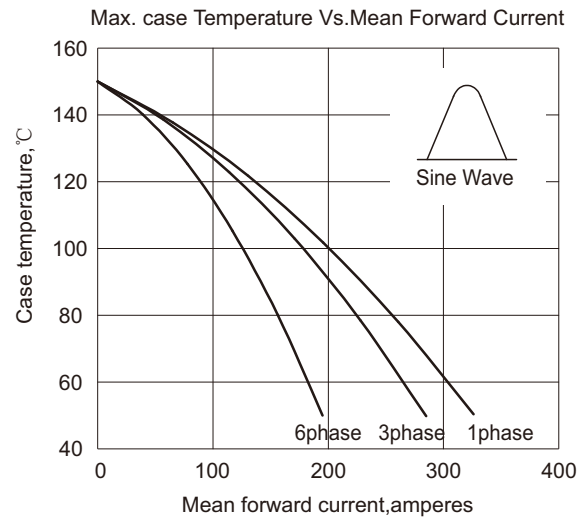


Fig.4

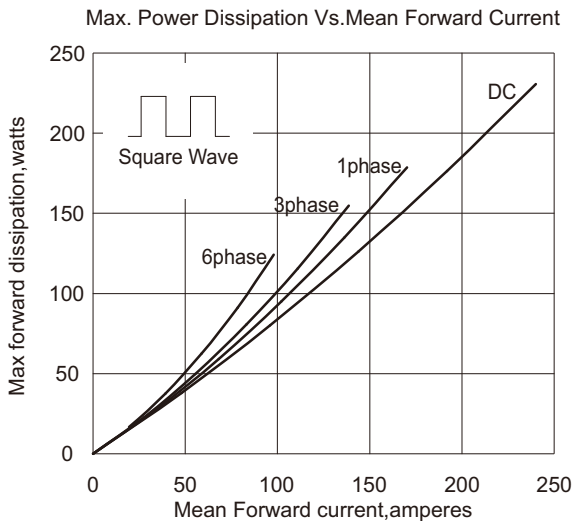


Fig.5

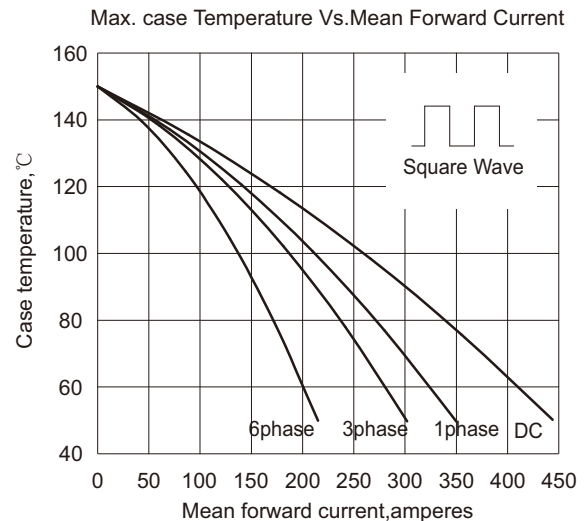


Fig.6

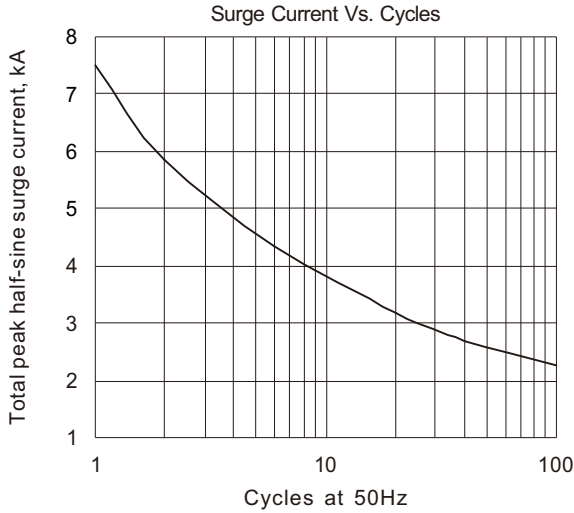


Fig.7

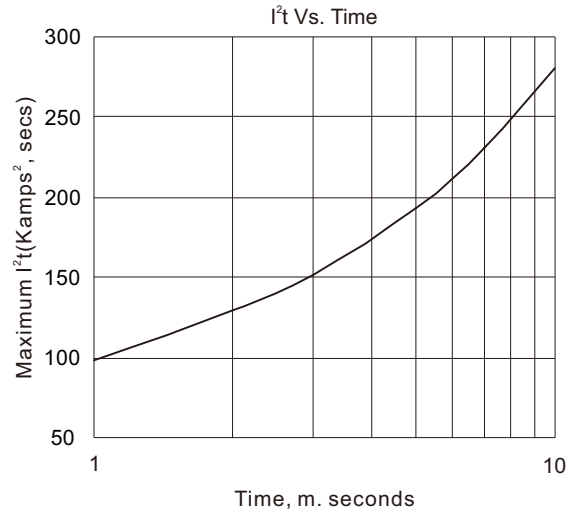


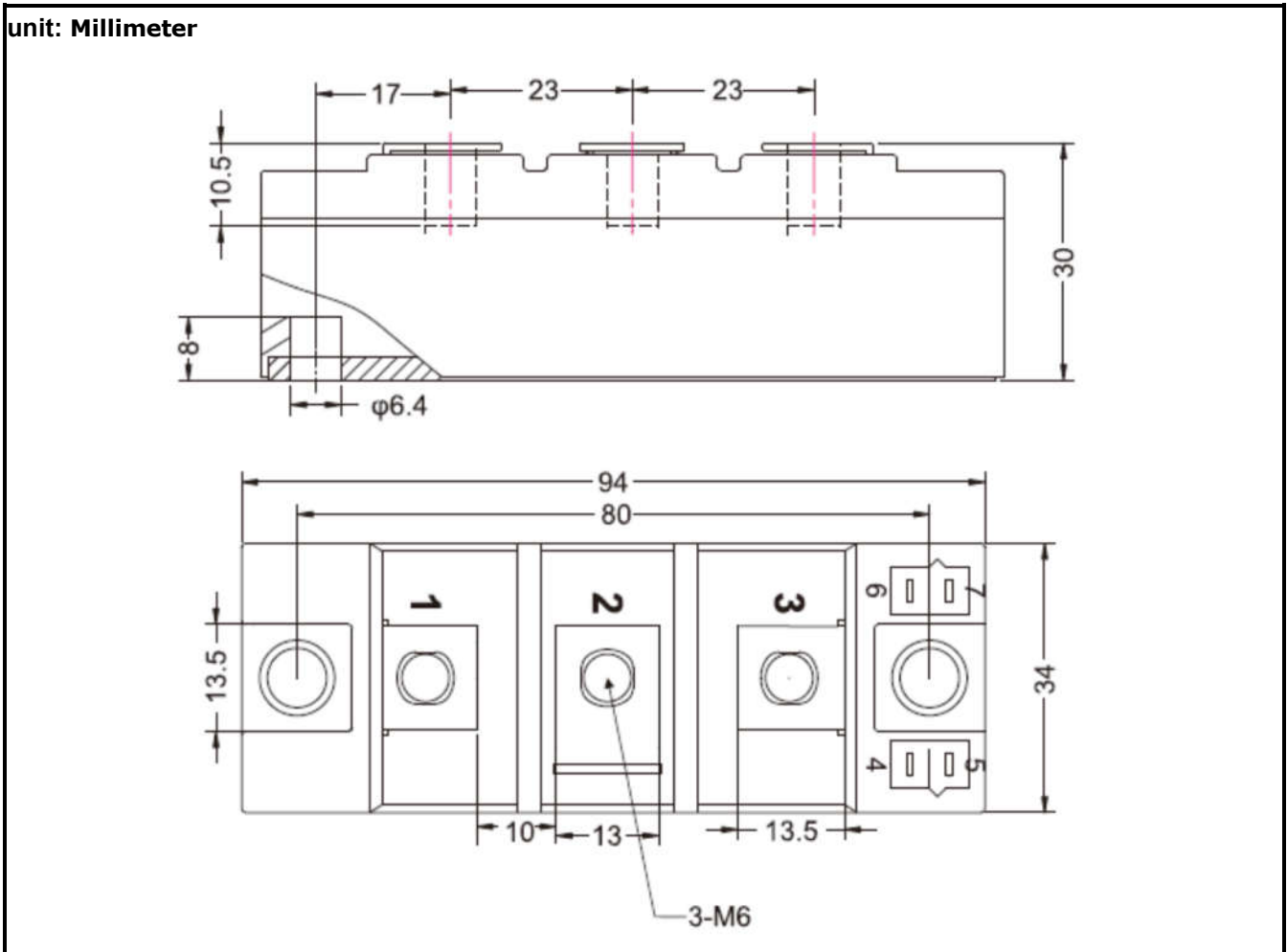
Fig.8

Ordering information

Model name	Package	Unit Weight	Base Quantity
MDK200-XX	MDK	8.11oz(230g)	10pcs/ Box

Package Dimensions

MDK



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