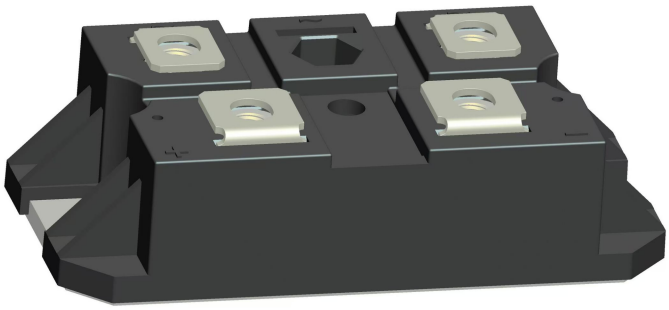
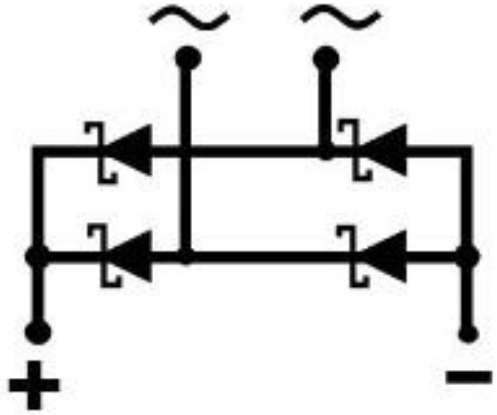
MPRA1C65-S61

模块化功率系统（MPS)





特征 Features	
◢ **几乎无开关损耗** Almost no switching loss ◢ **可忽略的反向恢复** Negligible reverse recovery ◢ **高浪涌电流能力** High surge current capabilit ◢ **更高的开关频率** Higher switching frequency ◢ **提高的系统效率** System efficiency improvement	◢ **正的温度系数** Positive Temperature Coefficient, ◢ **开关特性几乎与温度无关** Temperature-Independent Switching ◢ **低散热的要求** Low heat dissipation requirements ◢ **不含卤素/符合** RoHS Halogen-free/Rohs compliant

应用 Applications		
◢ **焊机 切割机** Welder CVT ◢ **直流充电** DC Charging	◢ **UPS 电源** POWER UPS	◢**高频输出整流** High Frequency Output Rectifier

快速参考数据 Quick reference data

符号 SYMBOL	特征/测试条件 Characteristic / Test Conditions	数值/VALUES			
		最小 Min	典型 Typ	最大 Max	单位 Unit
VRRM	反向重复峰值电压 repetitive peak reverse voltage	-	650	1000	V
I_F	连续正向电流 continuous forward current I_c=100℃	-	-	100	A
T_{RR}	I_F=50A, di/dt=200A/us	-	140	-	nS

静态特性 Static characteristics

符号 SYMBOL	特征 Characteristic	测试条件 Test Conditions	数值/VALUES			
			最小 Min	典型 Typ	最大 Max	单位 Unit
V_F	正向电压 forward voltage	IF=100A, T_J=25℃	-	1.4	1.65	V
		IF=100A, T_J=125℃	-	2.0	2.50	
I_R	反向电流 reverse current	VR=650V, T_J=25℃	-	8	100	μA
		VR=650V, T_J=150℃	-	-	1	mA

限制值 Limiting values Ta = 25℃ unless otherwise noted

符号 SYMBOL	特征/测试条件 Characteristic / Test Conditions	数值/VALUES			
		最小 Min	典型 Typ	最大 Max	单位 Unit
VRRM	反向重复峰值电压 Repetitive peak reverse voltage	-	650	-	V
VRWM	反向工作峰值电压 Crest working reverse voltage	-	650	-	
VF	正向电压 Forward voltage I_F=100A, T_J=25℃	-	1.4	1.65	
VR	反向阻断电压 Reverse blocking voltage I_R=100μA	650	-	-	
IF	连续正向电流 Continuous forward current I_c=135℃	-	-	100	A
IFRM	正向重复峰值电流 Repetitive peak forward current T_P=10ms, Half sine pulse	-	-	240	

I_{FSM}	非重复性正向浪涌电流 non-repetitive forward current T_P=10ms, Half sine pulse	-	-	270	A
T_{sgt}	储存温度 storage temperature	-65	-	150	℃
T_j	结温 junction temperature	-	-	175	
V_{dis}	绝缘耐压，端子与外壳之间外加交流电 1 分钟 Dielectric Strength，Terminals to case,AC 1 minute	-	2.5	-	KV
T_{RR}	I_F = 50A, di/dt=200A/us	-	140	-	nS
R_{thjc}	热阻 Thermal Impedance,max Junction to case @per module	-	0.68	-	℃/W
P_D	功率散耗 Power Dissipation Tj=175℃	-	230	-	W
Mt	安装扭矩-端子 Mounting Torque To terminals(M5)	-	3±15%	-	Nm
Ms	安装扭矩-散热器 Mounting Torque To heatsink(M5)	-	5±15%	-	
Weight	模块大约重量 Module(Approximately)	-	170	-	g

性能曲线 performance curves

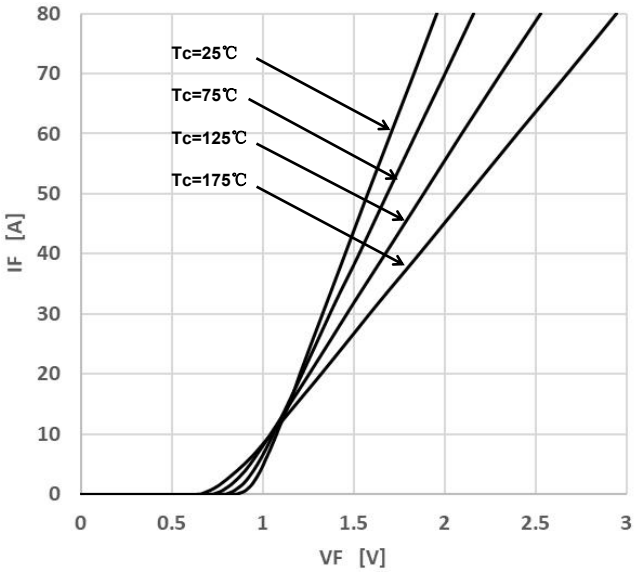


Figure1 ForwardCharacteristics

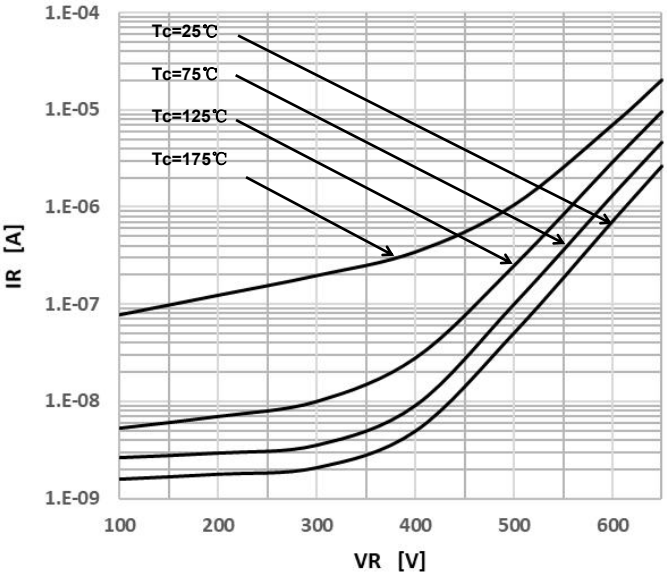


Figure 2 ReverseCharacteristics

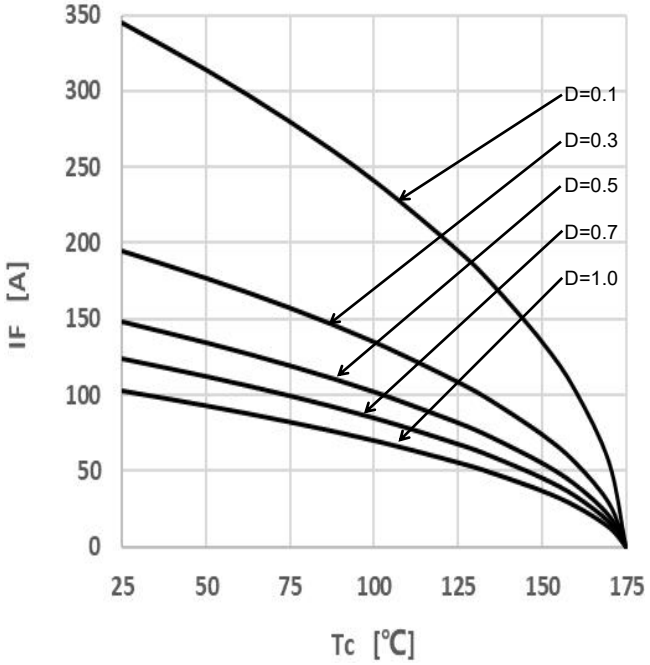


Figure3 Peak Forward Current Derating

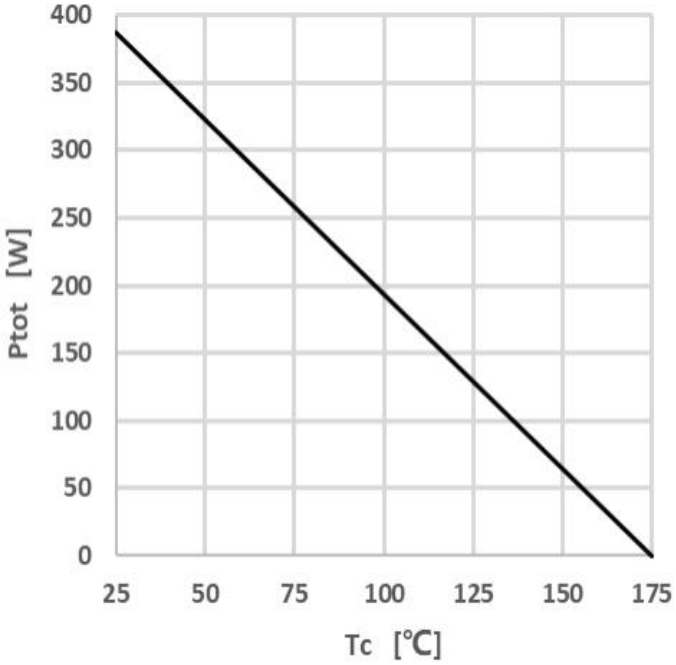


Figure4 PowerDissipation

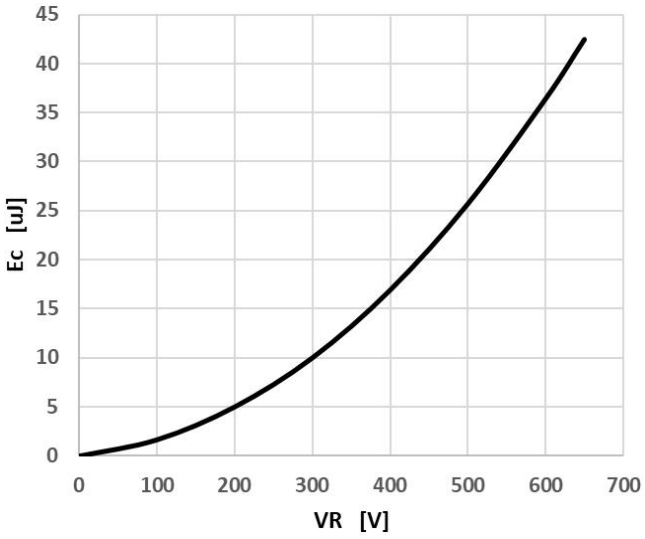


Figure5 Capacitancevs. Reverse Voltage

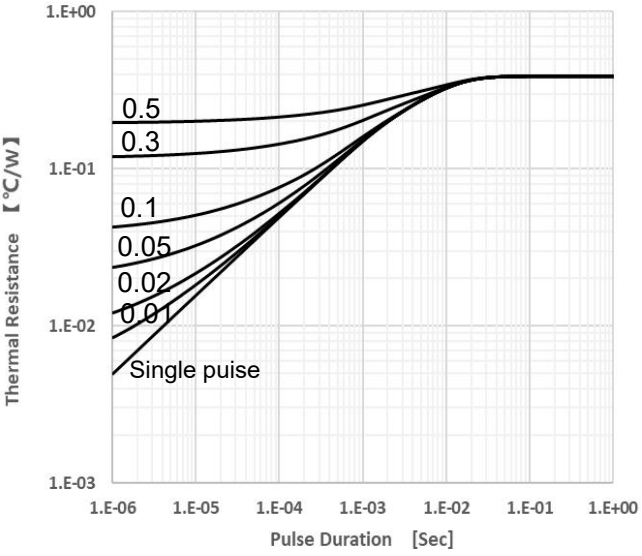
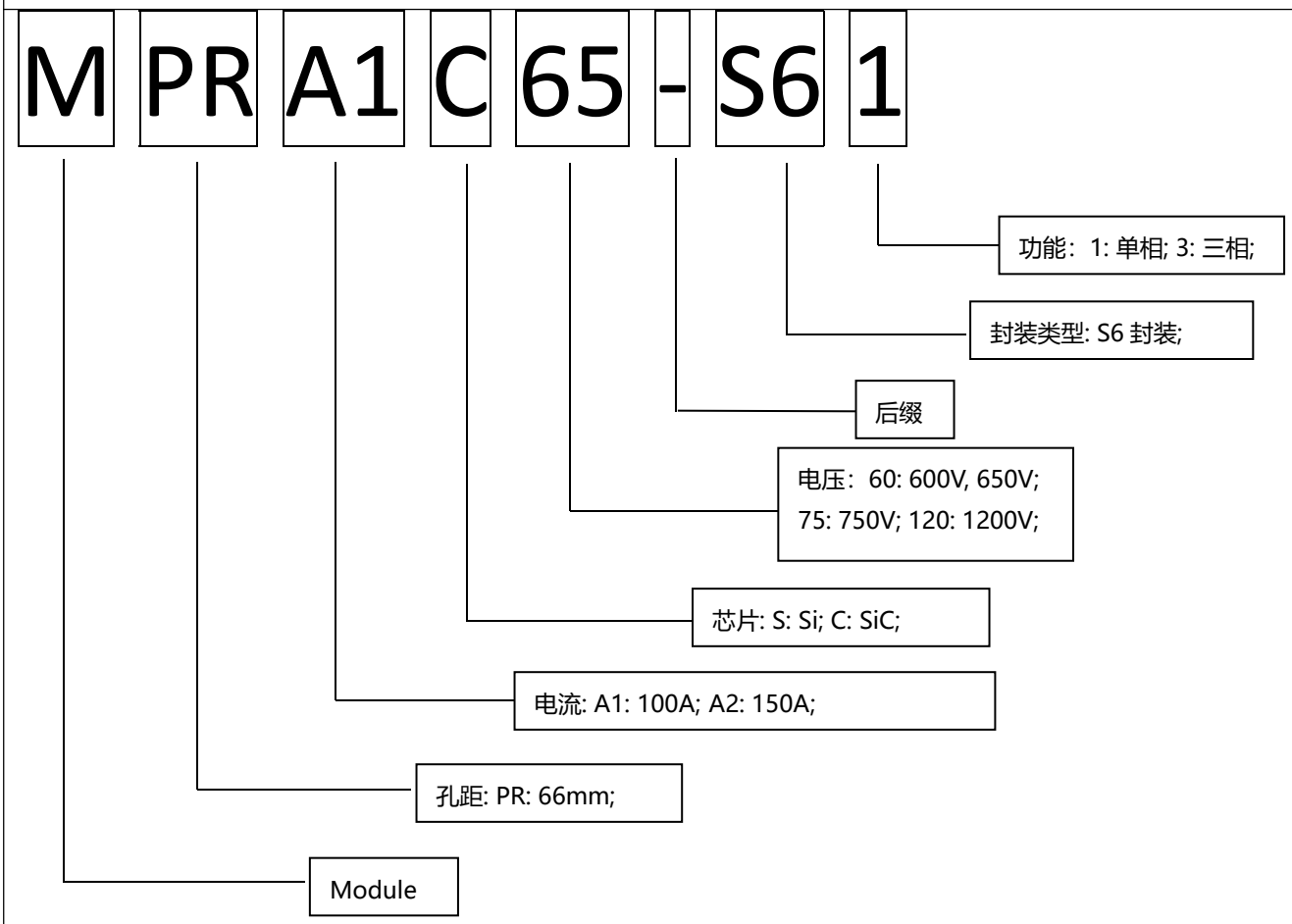


Figure6 Capacitance Charge vs. Reverse Voltage

信息标签 Information label



封装信息 Package Outline Information