



系统：
AC 充电机（车外）：慢充, 4~15 小时
DC 充电桩（车外）：快充, <30 分钟

东芝的卖点：

- 比对手更优的**性价比**
- **更薄**的光耦封装（仅 2.3mm 高）
- DT MOS IV 采用的单次外延工艺使**生产周期减半**
- DT MOS IV 在**高温下导通损耗**比对手**低 20%**

① MOSFET

封装	型号	通道	最大额定值		内阻 (Ω)	Ciss	进度
			V _{DSS} (V)	I _D (A)			
TO-247	TK20N60W	N	600	20	≤0.155	1680	量产中
TO-247	TK31N60W	N	600	30.8	≤0.088	3000	量产中
TO-247	TK39N60W	N	600	38.8	≤0.065	4100	量产中
TO-247	TK62N60W	N	600	61.8	≤0.040	6500	量产中
TO-3P(L)	TK100L60W	N	600	100	≤0.018	15000	量产中

② SiC SBD

封装	型号	组态	最大额定值			进度
			V _{RRM} (V)	I _F (A)	V _{FM} (V)	
TO-220-2L	TRS8E65C	单个	650	8	≤1.7	量产中
TO-220-2L	TRS10E65C	单个	650	10	≤1.7	量产中
TO-220-2L	TRS12E65C	两个	650	12	≤1.7	量产中
TO-220F-2L	TRS16A65C	两个	650	16	≤1.7	量产中
TO-3P(N)	TRS20J120C	单个	1200	20	≤1.7	量产中

③ MOSFET

封装	型号	通道	最大额定值		内阻 (Ω)	Ciss	进度
			V _{DSS} (V)	I _D (A)			
TO-247	TK31N60W5	N	600	30.8	≤0.099	3000	量产中
TO-247	TK39N60W5	N	600	38.8	≤0.074	4100	量产中
TO-247	TK62N60W5	N	600	61.8	≤0.045	6500	量产中
TO-247	TK35N65W5	N	650	35	≤0.095	4100	量产中
TO-247	TK49N65W5	N	650	49.2	≤0.057	6500	量产中

W5: 快速二极管品种

④ SiC MOSFET

封装	型号	通道	最大额定值		内阻 (Ω)	Ciss	进度
			V _{DSS} (V)	I _D (A)			
TO-3PN	TW069J120A	N	1200	47	≤0.069	1700	量产中

⑤ IGBT / MOSFET driver coupler

封装	型号	特点	最大额定值		传播时延 (μs)	应用	进度
			隔离电压 (Vrms)	I _{OP} (A)			
SO16L	TLP5214	轨对轨, 过压保护	5000	4	150	高边	量产中
SO6L	TLP5754	轨对轨	5000	4	150	低边	量产中

⑥ Isolation AMP

封装	型号	输出	隔离电压 (Vrms)	V _{DD} 耗电 (mA)	输入范围 (mV)	特点	进度
SO8L	TLP7820	差分模拟	5000	9.5	±200/300	薄装	量产中
DIP8	TLP7920	差分模拟	5000	9.5	±200/300	省电	CS
SO8L	TLP7830	CLK	5000	8.5	±320	薄装	ES
DIP8	TLP7930	CLK	5000	8.5	±320	省电	ES

⑦ Tr Photo Coupler

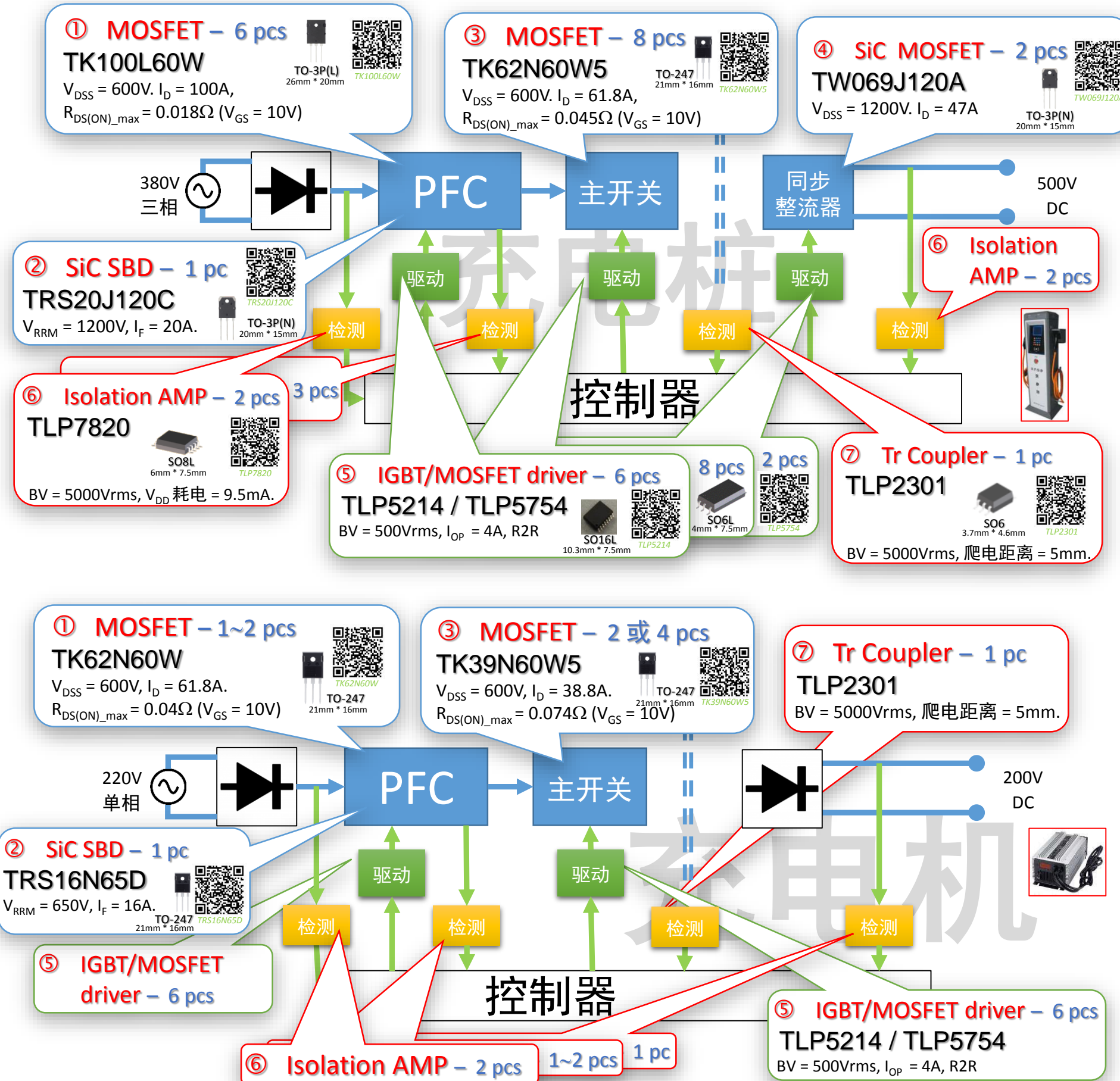
封装	型号	输入	隔离电压 (Vrms)	CTR (%)	长寿 LED	爬电距离 (mm)	进度
SO6	TLP183	低	3750	50~600	Yes	5	量产中
SO16	TLP293	低	3750	50~600	Yes	5	量产中
SO6L-4P	TLP383	低	5000	50~600	Yes	8	量产中
SO6L-4P	TLP385	DC	5000	50~600	No	8	量产中
SO6	TLP2301	快速	3750	50~600	Yes	5	量产中

*Devices are not intended for use in equipment that is assembled into automotive.

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EV 充电桩 / 充电机

产品对照列表



类型	对手型号	东芝型号	差异
① MOSFET	IPW60R160C6 - Infineon	TK20N60W	高温下东芝的导通损耗更低
① MOSFET	IPW60R099C6 - Infineon	TK31N60W	
① MOSFET	IPW60R070C6 - Infineon	TK39N60W	
① MOSFET	IPW60R041C6 - Infineon	TK62N60W	
① MOSFET	IPW65R019C7(650V) - Infineon	TK100L60W	
② SiC SBD	IDH08G65C5 - Infineon	TRS8E65C	高温下东芝的功耗更低
② SiC SBD	IDH10G65C5 - Infineon	TRS10E65C	
② SiC SBD	IDH12G65C5 - Infineon	TRS12E65C	
② SiC SBD	IDH16G65C5 - Infineon	TRS16A65C	
② SiC SBD	C2M0080120D - CREE	TRS20J120C	
③ MOSFET	SPW35N60CFD - Infineon	TK31N60W5	高温下东芝的反向恢复能力较快
③ MOSFET	SPW47N60CFD - Infineon	TK39N60W5	
③ MOSFET	STW70N60DM2 - ST	TK62N60W5	
③ MOSFET	IPW65R110CFD - Infineon	TK35N65W5	
③ MOSFET	IPW65R080CFD - Infineon	TK49N65W5	
④ SiC MOSFET	SCH2080KE - Rohm	TW069J120A	高温下东芝的导通损耗更低
⑤ Gate drive coupler	ACPL-331J/332J - Avago	TLP5214	直接替代性能更优
⑤ Gate drive coupler	ACPL-W346 - Avago	TLP5754	性能相似
⑥ Isolation AMP	ACPL-C79X - Avago	TLP7820	直接替代
⑥ Isolation AMP	ACPL-790X - Avago	TLP7920	
⑥ Isolation AMP	ACPL-C797 - Avago	TLP7830	
⑥ Isolation AMP	ACPL-7970 - Avago	TLP7930	
⑦ Tr Coupler	HCPL-181 - Avago	TLP183	直接替代性能更优
⑦ Tr Coupler	ACPL-217 - Avago	TLP293	
⑦ Tr Coupler	PC817 - Sharp	TLP383	性能相同封装不同
⑦ Tr Coupler	PC817 - Sharp	TLP385	
⑦ Tr Coupler	HCPL-181 - Avago	TLP2301	直接替代性能更优