

Solid State Relay Lead-free replacement list October 2005

*These models in this list show the common and widely-distributed products as the leaded type.

If you can not find out the model you are looking for, or not know the current production status of lead-free models, please contact a local SHARP sales representative.

Leaded part No.	Lead-free availability	Lead-free part No.	Outline	Solder Material	Soldering Condition
S101S05V	Yes	S101S05F	SIP 4pin	Sn-Cu	See appendix
S101S06V	Yes	S101S06F	SIP 4pin	Sn-Cu	See appendix
S101S16V	Yes	S101S16F	SIP 4pin	Sn-Cu	See appendix
S102S01	Yes	S102S01F	SIP 4pin	Sn-Cu	See appendix
S102S02	Yes	S102S02F	SIP 4pin	Sn-Cu	See appendix
S102S11	Yes	S102S11F	SIP 4pin	Sn-Cu	See appendix
S102S12	Yes	S102S12F	SIP 4pin	Sn-Cu	See appendix
S102T01	Yes	S102T01F	Low profile SIP 4pin	Sn-Cu	See appendix
S102T01V	Yes	S102T01H	Low profile SIP 4pin	Sn-Cu	See appendix
S102T02	Yes	S102T02F	Low profile SIP 4pin	Sn-Cu	See appendix
S108T01	Yes	S108T01F	Low profile SIP 4pin	Sn-Cu	See appendix
S108T02	Yes	S108T02F	Low profile SIP 4pin	Sn-Cu	See appendix
S112S01	Yes	S112S01F	SIP 4pin	Sn-Cu	See appendix
S116S01	Yes	S116S01F	SIP 4pin	Sn-Cu	See appendix
S116S02	Yes	S116S02F	SIP 4pin	Sn-Cu	See appendix
S201S06V	Yes	S201S06F	SIP 4pin	Sn-Cu	See appendix
S202S01	Yes	S202S01F	SIP 4pin	Sn-Cu	See appendix
S202S02	Yes	S202S02F	SIP 4pin	Sn-Cu	See appendix
S202S11	Yes	S202S11F	SIP 4pin	Sn-Cu	See appendix
S202S12	Yes	S202S12F	SIP 4pin	Sn-Cu	See appendix
S202S15V	Yes	S202S15F	SIP 4pin	Sn-Cu	See appendix
S202SE1	Yes	S202SE1F	SIP 4pin	Sn-Cu	See appendix
S202SE2	Yes	S202SE2F	SIP 4pin	Sn-Cu	See appendix
S202T01	Yes	S202T01F	Low profile SIP 4pin	Sn-Cu	See appendix
S202T02	Yes	S202T02F	Low profile SIP 4pin	Sn-Cu	See appendix
S202TY1	Yes	S202TY1F	Low profile SIP 4pin	Sn-Cu	See appendix
S202TY2	Yes	S202TY2F	Low profile SIP 4pin	Sn-Cu	See appendix
S208T01	Yes	S208T01F	Low profile SIP 4pin	Sn-Cu	See appendix
S208T02	Yes	S208T02F	Low profile SIP 4pin	Sn-Cu	See appendix
S216S01	Yes	S216S01F	SIP 4pin	Sn-Cu	See appendix
S216S02	Yes	S216S02F	SIP 4pin	Sn-Cu	See appendix
S216SE1	Yes	S216SE1F	SIP 4pin	Sn-Cu	See appendix
S216SE2	Yes	S216SE2F	SIP 4pin	Sn-Cu	See appendix
PR21HD22NSZ	Yes	PR21HD22NSZF	DIP16pin Through-hole	Sn-Cu	See appendix
PR22MA11NTZ	Yes	PR22MA11NTZF	DIP6pin Through-hole	Sn-Cu	See appendix
PR23MF11NIP	Yes	PR23MF11NIPF	DIP8pin SMD	Sn-Cu	See appendix
PR23MF11NSZ	Yes	PR23MF11NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR26MF11NIP	Yes	PR26MF11NIPF	DIP8pin SMD	Sn-Cu	See appendix
PR26MF11NSZ	Yes	PR26MF11NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR26MF12NSZ	Yes	PR26MF12NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR26MF21NSZ	Yes	PR26MF21NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR29MF11NIP	Yes	PR29MF11NIPF	DIP8pin SMD	Sn-Cu	See appendix
PR29MF11NSZ	Yes	PR29MF11NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR29MF12NSZ	Yes	PR29MF12NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR29MF21NSZ	Yes	PR29MF21NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR31HD22NSZ	Yes	PR31HD22NSZF	DIP16pin Through-hole	Sn-Cu	See appendix
PR31MA11NTZ	Yes	PR31MA11NTZF	DIP6pin Through-hole	Sn-Cu	See appendix
PR32MA11NTZ	Yes	PR32MA11NTZF	DIP6pin Through-hole	Sn-Cu	See appendix
PR33MF11NSZ	Yes	PR33MF11NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR36MF11NSZ	Yes	PR36MF11NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR36MF12NSZ	Yes	PR36MF12NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR36MF21NSZ	Yes	PR36MF21NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR36MF22NSZ	Yes	PR36MF22NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR39MF11NIP	Yes	PR39MF11NIPF	DIP8pin SMD	Sn-Cu	See appendix
PR39MF11NSZ	Yes	PR39MF11NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR39MF12NSZ	Yes	PR39MF12NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR39MF21NSZ	Yes	PR39MF21NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR39MF22NSZ	Yes	PR39MF22NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR39MF51NSZ	Yes	PR39MF51NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR3BMF11NSZ	Yes	PR3BMF11NSZF	DIP8pin Through-hole	Sn-Cu	See appendix
PR3BMF11YSZ	Yes	PR3BMF11YSZF	DIP8pin Through-hole	Sn-Cu	See appendix
S101D01	Yes	S101D01F	DIP16pin Through-hole	Sn-Cu	See appendix
S101D02	Yes	S101D02F	DIP16pin Through-hole	Sn-Cu	See appendix
S101DH1	Yes	S101DH1F	DIP16pin Through-hole	Sn-Cu	See appendix
S101DH2	Yes	S101DH2F	DIP16pin Through-hole	Sn-Cu	See appendix
S201D01	Yes	S201D01F	DIP16pin Through-hole	Sn-Cu	See appendix

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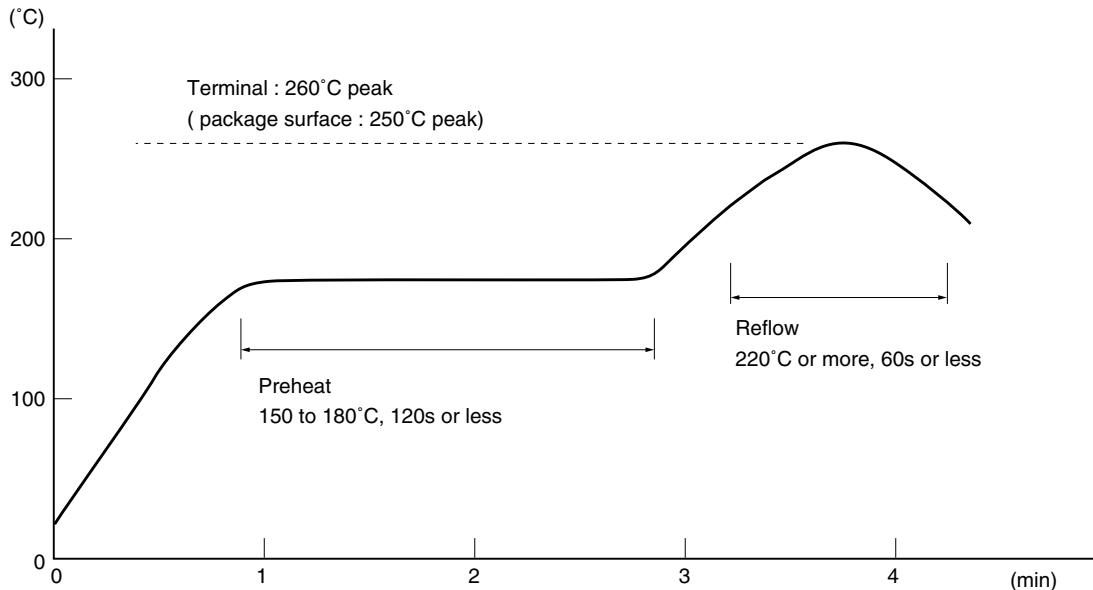
Leaded part No.	Lead-free availability	Lead-free part No.	Outline	Solder Material	Soldering Condition
S201D02	Yes	S201D02F	DIP16pin Through-hole	Sn-Cu	See appendix
S201DH1	Yes	S201DH1F	DIP16pin Through-hole	Sn-Cu	See appendix
S201DH1Y	Yes	S201DH1H	DIP16pin Through-hole	Sn-Cu	See appendix
S201DH2	Yes	S201DH2F	DIP16pin Through-hole	Sn-Cu	See appendix

■ Solid State Relay : Lead-free part soldering conditions DIP6pin(SMD) / DIP8pin(SMD)

● Soldering Method

Reflow Soldering:

Reflow soldering should follow the temperature profile shown below.
Soldering should not exceed the curve of temperature profile and time.
Please don't solder more than twice.



Flow Soldering (No solder bathing) :

Due to SHARP's double transfer mold construction submersion in flow solder bath is allowed under the below listed guidelines.

Flow soldering should be completed below 270°C and within 10s.
Preheating is within the bounds of 100 to 150°C and 30 to 80s.
Please don't solder more than twice.

Hand soldering

Hand soldering should be completed within 3s when the point of solder iron is below 400°C.
Please don't solder more than twice.

Other notices

Please test the soldering method in actual condition and make sure the soldering works fine, since the impact on the junction between the device and PCB varies depending on the tooling and soldering conditions.

■ Solid State Relay : Lead-free part soldering conditions DIP16pin

● Soldering Method

Flow Soldering (No solder bathing):

Flow soldering should be completed below 260°C and within 10s.

Preheating is within the bounds of 100 to 150°C and 30 to 80s.

Please solder within one time.

Hand soldering

Hand soldering should be completed within 3s when the point of solder iron is below 400°C.

Please solder within one time.

Other notices

Please test the soldering method in actual condition and make sure the soldering works fine, since the impact on the junction between the device and PCB varies depending on the tooling and soldering conditions.

■ Solid State Relay : Lead-free part soldering conditions SIP4pin, Low profile SIP4pin

● Soldering Method

Flow Soldering (No solder bathing)

Flow soldering should be completed below 260°C and within 10s.

Preheating is within the bounds of 100 to 150°C and 30 to 80s.

Please solder within one time.

Other notices

Please test the soldering method in actual condition and make sure the soldering works fine, since the impact on the junction between the device and PCB varies depending on the tooling and soldering conditions.