



### STGWA40N120KD Information



For Reference Only

Part Number STGWA40N120KD
Manufacturer STMicroelectronics

Category Discrete Semiconductor Products

Transistors - IGBTs - Single

**Description** IGBT 1200V 80A 240W TO247

Package TO-247-3

For the pricing/inventory/lead time, please contact

us

Website: https://www.heisener.com E-mail: salesdept@heisener.com



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# STGWA40N120KD Specifications

| Manufacturer Part Number         STGWA40N120KD           Manufacturer         STMicroelectronics           Category         Discrete Semiconductor Products           Transistors - IGBTs - Single           Package         TO-247-3           Series         PowerMESH?           IGBT Type         -           Voltage - Collector Emitter Breakdown (Max)         1200V           Current - Collector (Ic) (Max)         80A           Current - Collector Pulsed (Icm)         120A           Vce(on) (Max) @ Vge, Ic         3.85V @ 15V, 30A           Power - Max         240W           Switching Energy         3.7mJ (on), 5.7mJ (off)           Input Type         Standard           Gate Charge         126nC           Td (on/off) @ 25°C         48ns/338ns           Test Condition         960V, 30A, 10 Ohm, 15V           Reverse Recovery Time (trr)         84ns           Operating Temperature         -55°C ~ 125°C (TJ)           Mounting Type         Through Hole           Package / Case         TO-247-3           Supplier Device Package         TO-247 |   |                                 |
|---|---|---------------------------------|
| Category         Discrete Semiconductor Products           Transistors - IGBTs - Single           Package         TO-247-3           Series         PowerMESH?           IGBT Type         -           Voltage - Collector Emitter Breakdown (Max)         1200V           Current - Collector (Ic) (Max)         80A           Current - Collector Pulsed (Icm)         120A           Vce(on) (Max) @ Vge, Ic         3.85V @ 15V, 30A           Power - Max         240W           Switching Energy         3.7mJ (on), 5.7mJ (off)           Input Type         Standard           Gate Charge         126nC           Td (on/off) @ 25°C         48ns/338ns           Test Condition         960V, 30A, 10 Ohm, 15V           Reverse Recovery Time (trr)         84ns           Operating Temperature         -55°C ~ 125°C (TI)           Mounting Type         Through Hole           Package / Case         TO-247-3           Supplier Device Package         TO-247  | Manufacturer Part Number                    | STGWA40N120KD                   |
| Package         TO-247-3           Series         PowerMESH?           IGBT Type         -           Voltage - Collector Emitter Breakdown (Max)         1200V           Current - Collector (Ic) (Max)         80A           Current - Collector Pulsed (Icm)         120A           Vce(on) (Max) @ Vge, Ic         3.85V @ 15V, 30A           Power - Max         240W           Switching Energy         3.7mJ (on), 5.7mJ (off)           Input Type         Standard           Gate Charge         126nC           Td (on/off) @ 25°C         48ns/338ns           Test Condition         960V, 30A, 10 Ohm, 15V           Reverse Recovery Time (trr)         84ns           Operating Temperature         -55°C ~ 125°C (TJ)           Mounting Type         Through Hole           Package / Case         TO-247-3           Supplier Device Package         TO-247  | Manufacturer                                | STMicroelectronics              |
| Package         TO-247-3           Series         PowerMESH?           IGBT Type         -           Voltage - Collector Emitter Breakdown (Max)         1200V           Current - Collector (Ic) (Max)         80A           Current - Collector Pulsed (Icm)         120A           Vce(on) (Max) @ Vge, Ic         3.85V @ 15V, 30A           Power - Max         240W           Switching Energy         3.7mJ (on), 5.7mJ (off)           Input Type         Standard           Gate Charge         126nC           Td (on/off) @ 25°C         48ns/338ns           Test Condition         960V, 30A, 10 Ohm, 15V           Reverse Recovery Time (trr)         84ns           Operating Temperature         -55°C ~ 125°C (TJ)           Mounting Type         Through Hole           Package / Case         TO-247-3           Supplier Device Package         TO-247-3  | Category                                    | Discrete Semiconductor Products |
| Series         PowerMESH?           IGBT Type         -           Voltage - Collector Emitter Breakdown (Max)         1200V           Current - Collector (Ic) (Max)         80A           Current - Collector Pulsed (Icm)         120A           Vce(on) (Max) @ Vge, Ic         3.85V @ 15V, 30A           Power - Max         240W           Switching Energy         3.7mJ (on), 5.7mJ (off)           Input Type         Standard           Gate Charge         126nC           Td (on/off) @ 25°C         48ns/338ns           Test Condition         960V, 30A, 10 Ohm, 15V           Reverse Recovery Time (trr)         84ns           Operating Temperature         -55°C ~ 125°C (TJ)           Mounting Type         Through Hole           Package / Case         TO-247-3           Supplier Device Package         TO-247   |   | Transistors - IGBTs - Single    |
| IGBT Type-Voltage - Collector Emitter Breakdown (Max)1200VCurrent - Collector (Ic) (Max)80ACurrent - Collector Pulsed (Icm)120AVce(on) (Max) @ Vge, Ic3.85V @ 15V, 30APower - Max240WSwitching Energy3.7mJ (on), 5.7mJ (off)Input TypeStandardGate Charge126nCTd (on/off) @ 25°C48ns/338nsTest Condition960V, 30A, 10 Ohm, 15VReverse Recovery Time (trr)84nsOperating Temperature-55°C ~ 125°C (TJ)Mounting TypeThrough HolePackage / CaseTO-247-3Supplier Device PackageTO-247  | Package                                     | TO-247-3                        |
| Voltage - Collector Emitter Breakdown (Max)  Current - Collector (Ic) (Max)  Current - Collector Pulsed (Icm)  120A  Vce(on) (Max) @ Vge, Ic  3.85V @ 15V, 30A  Power - Max  240W  Switching Energy  3.7mJ (on), 5.7mJ (off)  Input Type  Standard  Gate Charge  126nC  Td (on/off) @ 25°C  48ns/338ns  Test Condition  960V, 30A, 10 Ohm, 15V  Reverse Recovery Time (trr)  84ns  Operating Temperature  -55°C ~ 125°C (TJ)  Mounting Type  Through Hole  Package / Case  TO-247-3  Supplier Device Package  | Series                                      | PowerMESH?                      |
| Current - Collector (Ic) (Max)  Current - Collector Pulsed (Icm)  Vee(on) (Max) @ Vge, Ic  3.85V @ 15V, 30A  Power - Max  240W  Switching Energy  3.7mJ (on), 5.7mJ (off)  Input Type  Standard  Gate Charge  126nC  Td (on/off) @ 25°C  48ns/338ns  Test Condition  960V, 30A, 10 Ohm, 15V  Reverse Recovery Time (trr)  84ns  Operating Temperature  -55°C ~ 125°C (TJ)  Mounting Type  Through Hole  Package / Case  TO-247-3  Supplier Device Package   | IGBT Type                                   | -                               |
| Current - Collector Pulsed (Icm)  Vce(on) (Max) @ Vge, Ic  3.85V @ 15V, 30A  Power - Max  240W  Switching Energy  3.7mJ (on), 5.7mJ (off)  Input Type  Standard  Gate Charge  126nC  Td (on/off) @ 25°C  48ns/338ns  Test Condition  960V, 30A, 10 Ohm, 15V  Reverse Recovery Time (trr)  84ns  Operating Temperature  -55°C ~ 125°C (TJ)  Mounting Type  Through Hole  Package / Case  TO-247-3  Supplier Device Package   | Voltage - Collector Emitter Breakdown (Max) | 1200V                           |
| Vce(on) (Max) @ Vge, Ic       3.85V @ 15V, 30A         Power - Max       240W         Switching Energy       3.7mJ (on), 5.7mJ (off)         Input Type       Standard         Gate Charge       126nC         Td (on/off) @ 25°C       48ns/338ns         Test Condition       960V, 30A, 10 Ohm, 15V         Reverse Recovery Time (trr)       84ns         Operating Temperature       -55°C ~ 125°C (TJ)         Mounting Type       Through Hole         Package / Case       TO-247-3         Supplier Device Package       TO-247  | Current - Collector (Ic) (Max)              | 80A                             |
| Power - Max Switching Energy 3.7mJ (on), 5.7mJ (off)  Input Type Standard  Gate Charge 126nC Td (on/off) @ 25°C 48ns/338ns  Test Condition 960V, 30A, 10 Ohm, 15V  Reverse Recovery Time (trr) 84ns Operating Temperature -55°C ~ 125°C (TJ)  Mounting Type Through Hole Package / Case TO-247-3  Supplier Device Package TO-247  | Current - Collector Pulsed (Icm)            | 120A                            |
| Switching Energy  Input Type  Standard  Gate Charge  126nC  Td (on/off) @ 25°C  48ns/338ns  Test Condition  Peeverse Recovery Time (trr)  Operating Temperature  Operating Type  Through Hole  Package / Case  Supplier Device Package  3.7mJ (on), 5.7mJ (off)  84ns  126nC  48ns/338ns  960V, 30A, 10 Ohm, 15V  84ns  -55°C ~ 125°C (TJ)  Through Hole  To-247-3  | Vce(on) (Max) @ Vge, Ic                     | 3.85V @ 15V, 30A                |
| Input Type  Standard  Gate Charge  126nC  Td (on/off) @ 25°C  48ns/338ns  Test Condition  960V, 30A, 10 Ohm, 15V  Reverse Recovery Time (trr)  84ns  Operating Temperature  -55°C ~ 125°C (TJ)  Mounting Type  Through Hole  Package / Case  TO-247-3  Supplier Device Package  | Power - Max                                 | 240W                            |
| Gate Charge 126nC Td (on/off) @ 25°C 48ns/338ns Test Condition 960V, 30A, 10 Ohm, 15V Reverse Recovery Time (trr) 84ns Operating Temperature -55°C ~ 125°C (TJ) Mounting Type Through Hole Package / Case TO-247-3 Supplier Device Package  | Switching Energy                            | 3.7mJ (on), 5.7mJ (off)         |
| Td (on/off) @ 25°C 48ns/338ns  Test Condition 960V, 30A, 10 Ohm, 15V  Reverse Recovery Time (trr) 84ns  Operating Temperature -55°C ~ 125°C (TJ)  Mounting Type Through Hole  Package / Case TO-247-3  Supplier Device Package  | Input Type                                  | Standard                        |
| Test Condition 960V, 30A, 10 Ohm, 15V  Reverse Recovery Time (trr) 84ns  Operating Temperature -55°C ~ 125°C (TJ)  Mounting Type Through Hole  Package / Case TO-247-3  Supplier Device Package TO-247  | Gate Charge                                 | 126nC                           |
| Reverse Recovery Time (trr)  84ns  Operating Temperature  -55°C ~ 125°C (TJ)  Mounting Type  Through Hole  Package / Case  TO-247-3  Supplier Device Package  TO-247  | Td (on/off) @ 25°C                          | 48ns/338ns                      |
| Operating Temperature  -55°C ~ 125°C (TJ)  Mounting Type  Through Hole  Package / Case  TO-247-3  Supplier Device Package  TO-247   | Test Condition                              | 960V, 30A, 10 Ohm, 15V          |
| Mounting Type Through Hole Package / Case TO-247-3 Supplier Device Package TO-247   | Reverse Recovery Time (trr)                 | 84ns                            |
| Package / Case TO-247-3 Supplier Device Package TO-247  | Operating Temperature                       | -55°C ~ 125°C (TJ)              |
| Supplier Device Package TO-247  | Mounting Type                               | Through Hole                    |
|   | Package / Case                              | TO-247-3                        |
| Doport orrors?  | Supplier Device Package                     | TO-247                          |
| Report errors?  |   | Report errors?                  |

#### STGWA40N120KD Guarantees



#### **Quality Guarantees**

We provide 90 days warranty. \*

If the items you received were not in perfect quality, we would be responsible for your refund or replacement, but the items must be returned in their original condition.



#### **Service Guarantees**

We guarantee 100% customer satisfaction.

Our experienced sales team and tech support team back our services to satisfy all our customers.

## STGWA40N120KD Payment Methods

































If you have any question about STGWA40N120KD, please do not hesitate to contact us!

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