

New Release

LTEC Corporation

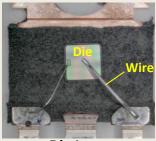
Your most experienced partner in IP protection

ST Micro electronics SCT30N120 SiC POWER PACKAGE ANALYSIS REPORT

July, 5 2016. This is a detailed package analysis report of the SCT30N120 SiC Power device. This product realizes the continuous operation at 200°C.

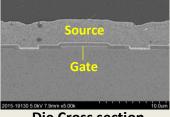


Die Attach **Lead Frame**

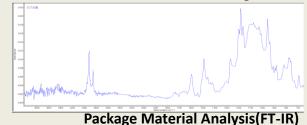


Package Cross section

Die Image



Die Cross section



The packaging technologies are key for realizing high temperature continuous operation. Packaging key technologies to realize 200°C continuous operation are highlighted in this report by comparing 4 products as below. Detail analysis of surface treatment of power devices, die attachment, wire bonding and materials are conducted in 35 pages report.

: STMicro SCT30N120 (1200V) Tjmax=200°C SiC device

: ROHM SCH2080KE (1200V) Tjmax=175°C ✓ SiC device

Silicon device: STMicro STGW40V60DLF (600V IGBT) Tjmax=175°C

Silicon device: Infineon SPI21N10 (100V MOSFET) Tjmax=175°C

Priced to sell at \$3,500 **Contact LTEC Corporation**

info@ltecusa.com

15G-0003-1



Table of Contents

		page
1.	Executive summary	3-4
2.	Out line (Package, Structure, Device)	5-7
3.	Wire bonding and Die attachment details	8-17
4.	Device structure and materials detail	19-23
	4-1. Device	
	4-2. Electrode	
5.	Mold materials	24-35
	5-1. Filler materials	
	5-2. Resin materials	

- ✓ SiC device : STMicro SCT30N120 (1200V) Tjmax=200°C
- ✓ SiC device : ROHM SCH2080KE (1200V) Tjmax=175°C
- ✓ Silicon device: STMicro STGW40V60DLF (600V IGBT) Tjmax=175°C
- ✓ Silicon device: Infineon SPI21N10 (100V MOSFET) Tjmax=175°C

