

查询"SK15GD126_07"供应商



SEMITOP® 2

IGBT Module

SK 15GD126

Preliminary Data

Features

- Fast Trench IGBTs
- Soft freewheeling diodes in CAL High Density technology
- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)

Typical Applications

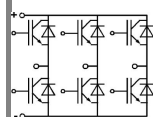
- Switching (not for linear use)
- Inverter
- Switched mode power supplies
- UPS

Remarks

- V_F = chip level value

Absolute Maximum Ratings				$T_s = 25\text{ °C}$, unless otherwise specified	
Symbol	Conditions			Values	Units
IGBT					
V_{CES}	$T_j = 25\text{ °C}$			1200	V
I_C	$T_j = 150\text{ °C}$	$T_s = 25\text{ °C}$		22	A
		$T_s = 80\text{ °C}$		15	A
I_{CRM}	$I_{CRM} = 2 \times I_{Cnom}$			30	A
V_{GES}				± 20	V
t_{psc}	$V_{CC} = 600\text{ V}$; $V_{GE} \leq 20\text{ V}$; $T_j = 125\text{ °C}$ $V_{CES} < 1200\text{ V}$			10	μs
Inverse Diode					
I_F	$T_j = 150\text{ °C}$	$T_s = 25\text{ °C}$		25	A
		$T_s = 80\text{ °C}$		17	A
I_{FRM}	$I_{FRM} = 2 \times I_{Fnom}$			30	A
Module					
$I_{t(RMS)}$					A
T_{vj}				-40 ... +150	$^{\circ}\text{C}$
T_{stg}				-40 ... +125	$^{\circ}\text{C}$
V_{isol}	AC, 1 min.			2500	V

Characteristics			T _s = 25 °C, unless otherwise specified				
Symbol	Conditions		min.	typ.	max.	Units	
IGBT							
V _{GE(th)}	V _{GE} = V _{CE} , I _C = 0,6 mA		5	5,8	6,5	V	
I _{CES}	V _{GE} = 1200 V, V _{CE} = V _{CES} T _j = 25 °C T _j = 125 °C				0,1	mA mA	
I _{GES}	V _{CE} = 0 V, V _{GE} = 20 V T _j = 125 °C				120	nA	
V _{CE0}	T _j = 25 °C T _j = 125 °C			1 0,9		V V	
r _{CE}	V _{GE} = 15 V T _j = 25°C T _j = 125°C			45 70		mΩ mΩ	
V _{CE(sat)}	I _{Cnom} = 15 A, V _{GE} = 15 V T _j = 25°C _{chiplev.} T _j = 125°C _{chiplev.}			1,7 2	2,1	V V	
C _{ies} C _{oes} C _{res}	V _{CE} = 25, V _{GE} = 0 V f = 1 MHz			1,2 0,058 0,048		nF nF nF	
t _{d(on)} t _r E _{on}	R _{Gon} = 50 Ω	V _{CC} = 600V I _{Cnom} = 15A T _j = 125 °C V _{GE} =±15V		35 20 2		ns ns mJ	
t _{d(off)} t _f E _{off}			R _{Goff} = 50 Ω		403 192 1,56		ns ns mJ
R _{th(j-s)}	per IGBT				1,6	K/W	



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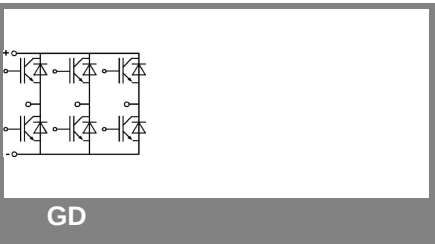
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Characteristics						
Symbol	Conditions		min.	typ.	max.	Units
Inverse Diode						
V _F = V _{EC}	I _{Fnom} = 11 A; V _{GE} = 0 V	T _j = 25 °C _{chiplev.}		1,6	1,8	V
		T _j = 125 °C _{chiplev.}		1,6	1,8	V
V _{F0}		T _j = 25 °C		1	1,1	V
		T _j = 125 °C		0,8		V
r _F		T _j = 25 °C		40	47	mΩ
		T _j = 125 °C		53		mΩ
I _{RRM}	I _{Fnom} = 15 A	T _j = 125 °C		21		A
Q _{rr}	di/dt = 570 A/μs			3,5		μC
E _{rr}	V _{CC} = 600V			1,4		mJ
R _{th(j-s)D}	per diode				2,1	K/W
M _s	to heat sink M1				2	Nm
w				21		g

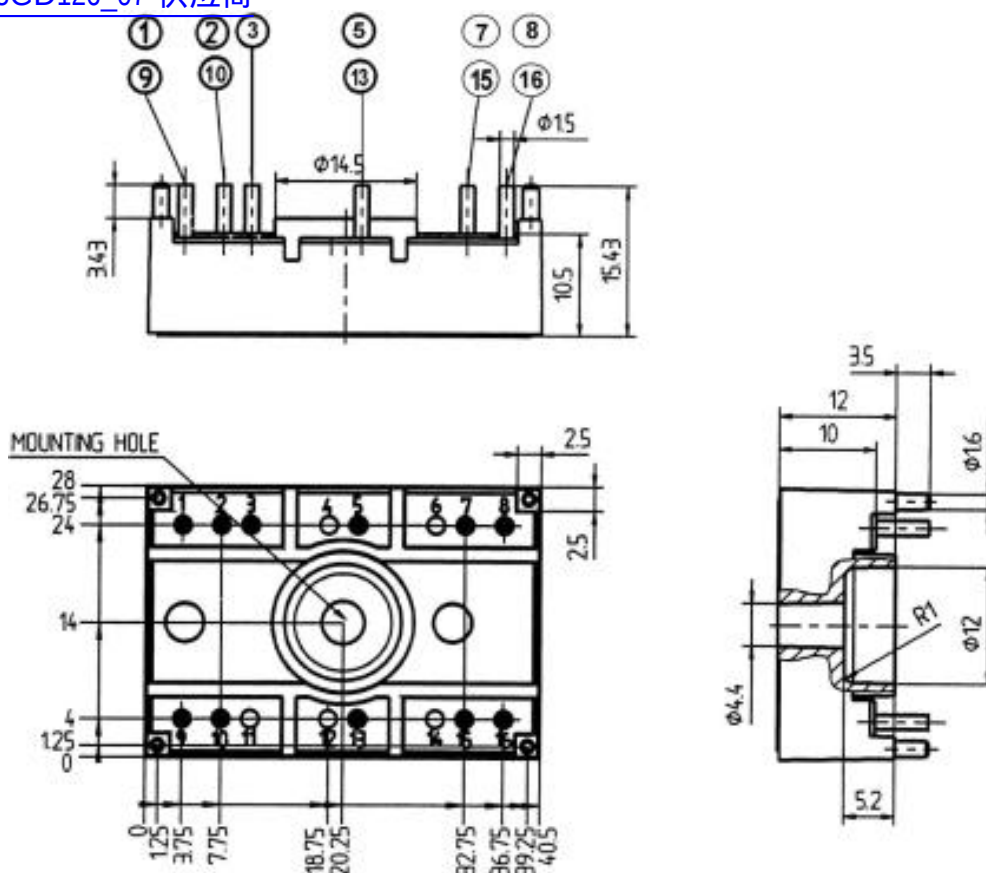
This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX.

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.

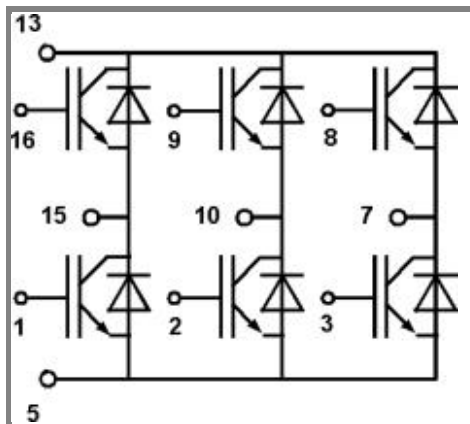
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no. E 63 532



Case T47 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins: 2mm)



Case T47

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