

查询"SK10GH123_06"供应商



SEMITOP® 2

IGBT Module

SK10GH123

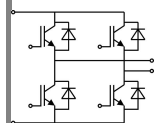
Preliminary Data

Features

- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- N-channel homogeneous silicon structure (NPT-Non punch-through IGBT)
- High short circuit capability
- Low tail current with low temperature dependence
- UL recognized, file no. E63532

Typical Applications

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



GH

Absolute Maximum Ratings		T _s = 25 °C, unless otherwise specified		
Symbol	Conditions	Values	Units	
IGBT				
V _{CES}	T _j = 25 °C	1200	V	
I _C	T _j = 125 °C	T _s = 25 °C	16	A
		T _s = 80 °C	11	A
I _{CRM}	I _{CRM} = 2 x I _{Cnom}	16	A	
V _{GES}		± 20	V	
t _{psc}	V _{CC} = 600 V; V _{GE} ≤ 20 V; T _j = 125 °C V _{CES} < 1200 V	10	µs	
Inverse Diode				
I _F	T _j = 150 °C	T _s = 25 °C	18	A
		T _s = 80 °C	12	A
I _{FRM}	I _{FRM} = 2 x I _{Fnom}		A	
I _{FSM}	t _p = 10 ms; half sine wave T _j = 150 °C	125	A	
Module				
I _{t(RMS)}			A	
T _{vj}		-40 ... +150	°C	
T _{stg}		-40 ... +125	°C	
V _{isol}	AC, 1 min.	2500	V	

Characteristics		$T_s = 25\text{ °C}$, unless otherwise specified			
Symbol	Conditions	min.	typ.	max.	Units
IGBT					
$V_{GE(th)}$	$V_{GE} = V_{CE}$, $I_C = 0,35\text{ mA}$	4,5	5,5	6,5	V
I_{CES}	$V_{GE} = 0\text{ V}$, $V_{CE} = V_{CES}$			0,05	$T_j = 25\text{ °C}$ mA
					$T_j = 125\text{ °C}$ mA
I_{GES}	$V_{CE} = 0\text{ V}$, $V_{GE} = 30\text{ V}$			120	$T_j = 25\text{ °C}$ nA
					$T_j = 125\text{ °C}$ nA
V_{CE0}			1,2		$T_j = 25\text{ °C}$ V
					$T_j = 125\text{ °C}$ V
r_{CE}	$V_{GE} = 15\text{ V}$		150		$T_j = 25\text{ °C}$ m Ω
					$T_j = 125\text{ °C}$ m Ω
$V_{CE(sat)}$	$I_{Cnom} = 10\text{ A}$, $V_{GE} = 15\text{ V}$		2,7	3,2	$T_j = 25\text{ °C}_{chipleve.}$ V
					$T_j = 125\text{ °C}_{chipleve.}$ V
C_{ies}	$V_{CE} = 25$, $V_{GE} = 0\text{ V}$		0,6		nF
C_{oes}					0,06 nF
C_{res}					0,038 nF
$t_{d(on)}$	$R_{Gon} = 50\text{ }\Omega$		30		$V_{CC} = 600\text{ V}$ ns
t_r					$I_{Cnom} = 10\text{ A}$ ns
E_{on}	$R_{Goff} = 50\text{ }\Omega$		1,3		$T_j = 125\text{ °C}$ mJ
$t_{d(off)}$					$V_{GE} = \pm 15\text{ V}$ ns
t_f					35 ns
E_{off}			1		mJ
$R_{th(j-s)}$	per IGBT			1,8	K/W



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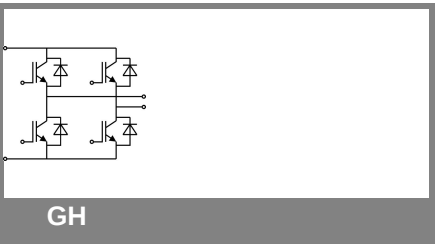
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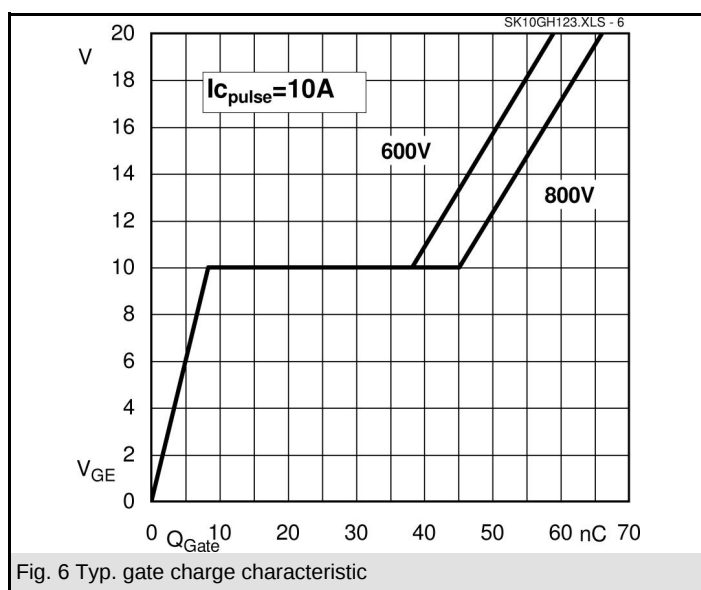
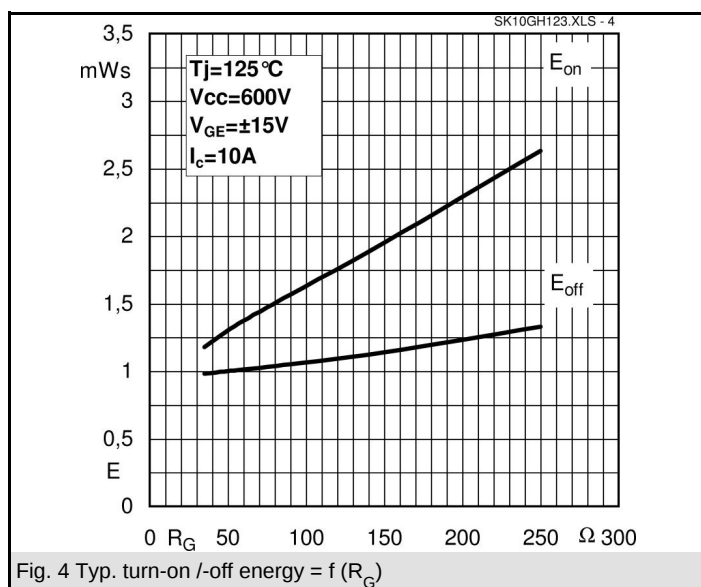
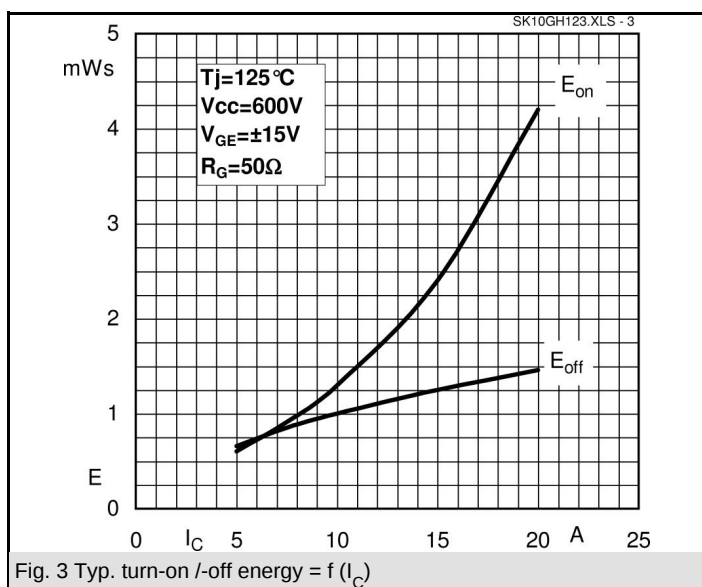
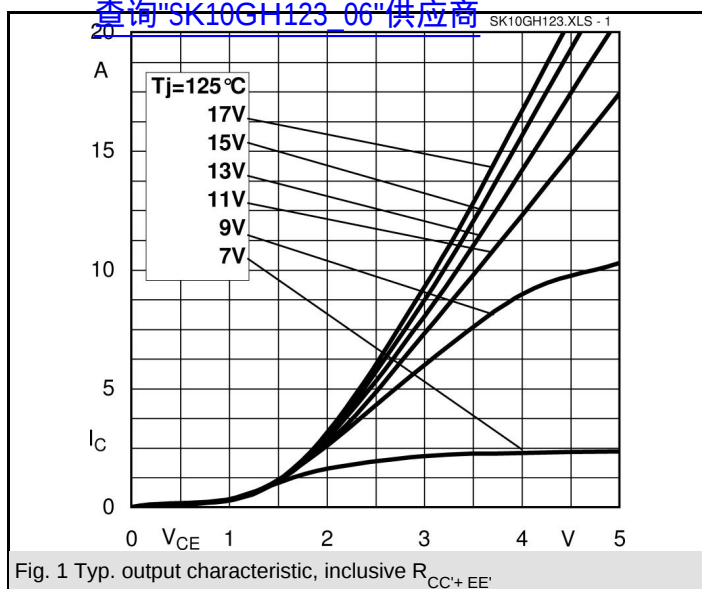


Characteristics						
Symbol	Conditions		min.	typ.	max.	Units
Inverse Diode						
V _F = V _{EC}	I _{Fnom} = 10 A; V _{GE} = 0 V	T _j = 25 °C _{chiplev.}		2	2,5	V
		T _j = 125 °C _{chiplev.}		1,8	2,3	V
V _{F0}		T _j = 125 °C		1	1,2	V
r _F		T _j = 125 °C		80	110	mΩ
I _{RRM}	I _{Fnom} = 10 A di/dt = -300 A/μs V _{CC} = 600V	T _j = 125 °C		12		A
Q _{rr}				1,8		μC
E _{rr}				0,4		mJ
R _{th(j-s)D}	per diode				2,1	K/W
M _s	to heat sink M1				2	Nm
w				21		g

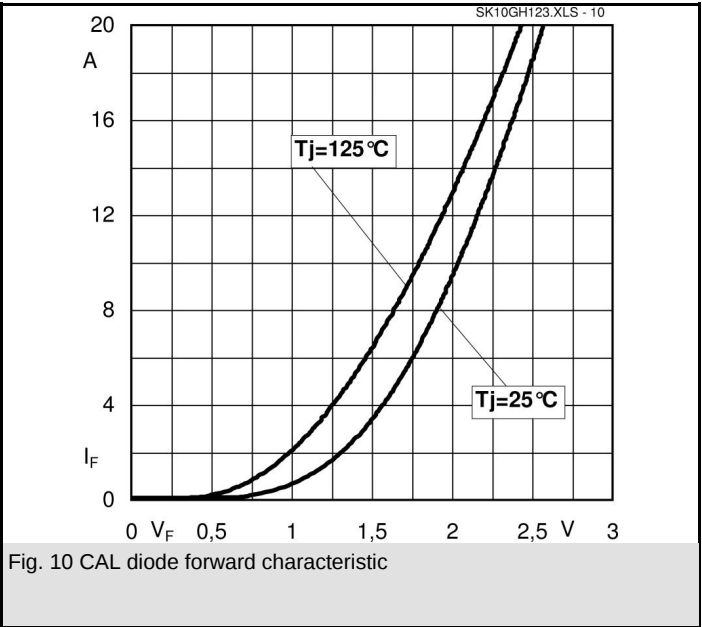
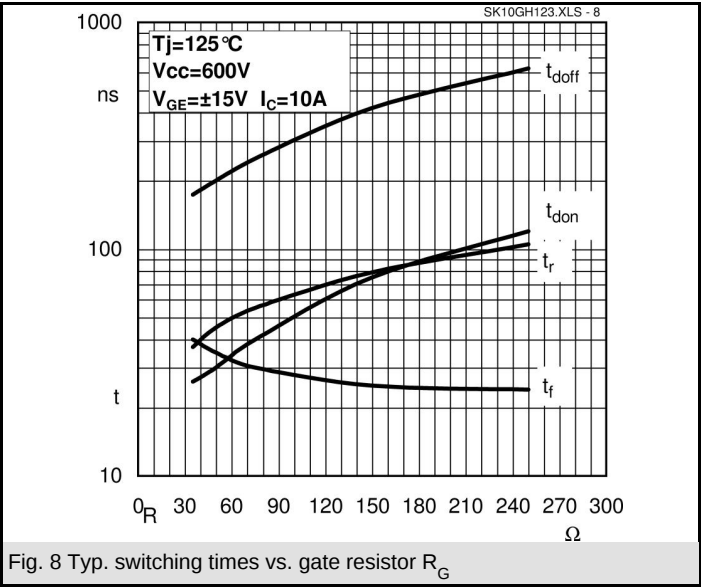
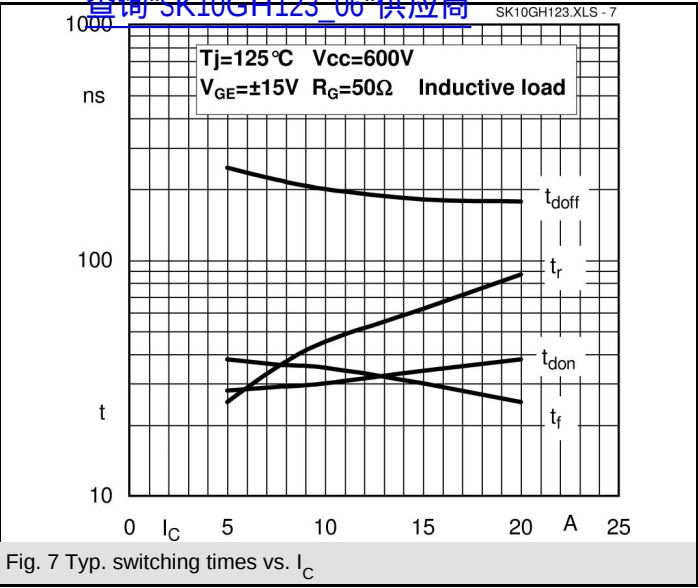
This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX.

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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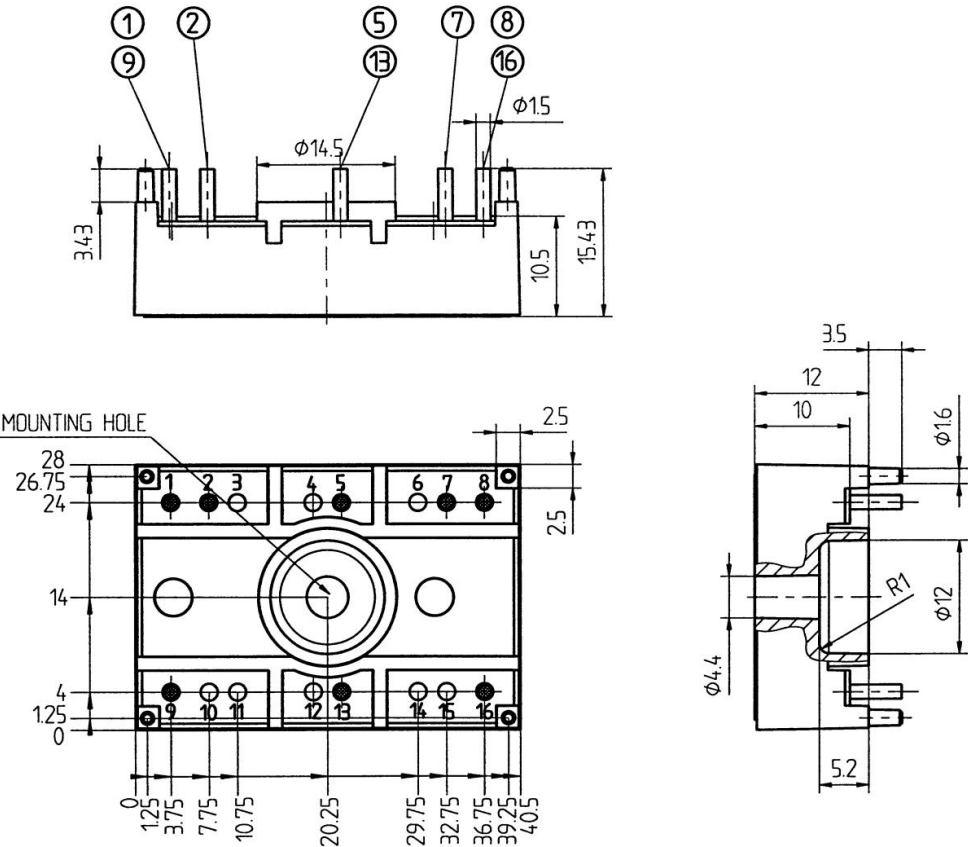


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UL recognized file

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no. E 63 532



Case T5 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins: 2mm)

