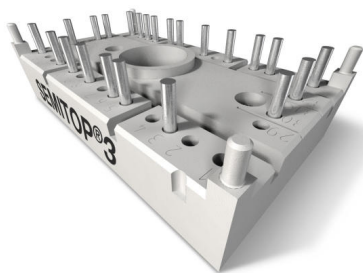


SK35GD126ET



SEMITOP® 3

IGBT Module

SK35GD126ET

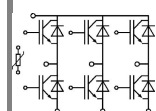
Preliminary Data

Features

- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Ultrafast NPT technology IGBT
- CAL technology FWD
- Integrated NTC temperature sensor

Typical Applications

- Inverter

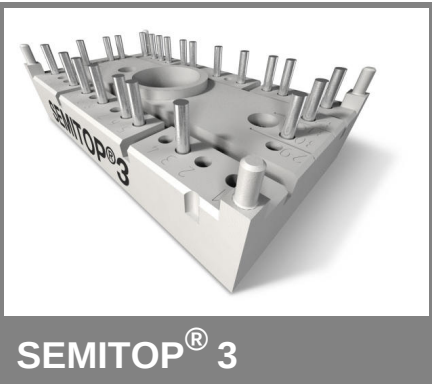


GD-ET

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	$T_j = 150\text{ °C}$	$T_s = 25\text{ °C}$		40	A
		$T_s = 80\text{ °C}$		32	A
I_{CRM}	$I_{CRM} = 2 \times I_{Cnom}$			70	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	$T_j = 150\text{ °C}$	$T_s = 25\text{ °C}$		34	A
		$T_s = 80\text{ °C}$		23	A
I_{FRM}	$I_{FRM} = 2 \times I_{Fnom}$			70	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 = 1,5 mA		5	5,8	6,5	V
I _{CES}	V _{GE} = 0 V, V _{CE} = V _{CES} T _j = 25 °C T _j = 125 °C					mA mA
I _{GES}	V _{CE} = 0 V, V _{GE} = 20 V T _j = 25 °C T _j = 125 °C		600			nA 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		20 31			mΩ mΩ
V _{CE(sat)}	I _{Cnom} = 35 A, V _{GE} = 15 V T _j = 25°C _{chiplev.} T _j = 125°C _{chiplev.}		1,7 2			V V
C _{ies} C _{oes} C _{res}	V _{CE} = 25, V _{GE} = 0 V f = 1 MHz		2,5 0,132 0,115			nF nF nF
t _{d(on)} t _r E _{on}	R _{Gon} = 15 Ω	V _{CC} = 600V I _C = 35A	85 30 4,6			ns ns mJ
t _{d(off)} t _f E _{off}	R _{Goff} = 15 Ω	T _j = 125 °C V _{GE} =±15V	430 90 4,3			ns ns mJ
R _{th(j-s)}	per IGBT		1,05			K/W

SK35GD126ET



IGBT Module

SK35GD126ET

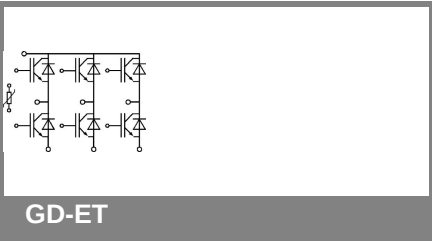
Preliminary Data

Features

- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Ultrafast NPT technology IGBT
- CAL technology FWD
- Integrated NTC temperature sensor

Typical Applications

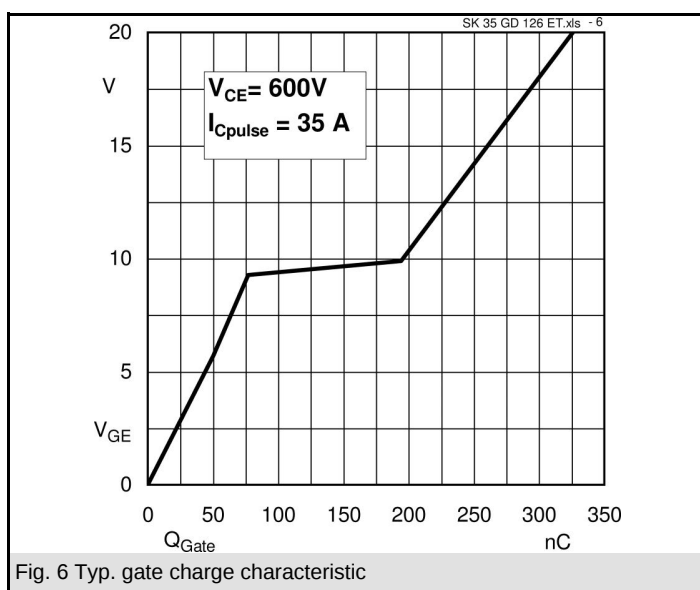
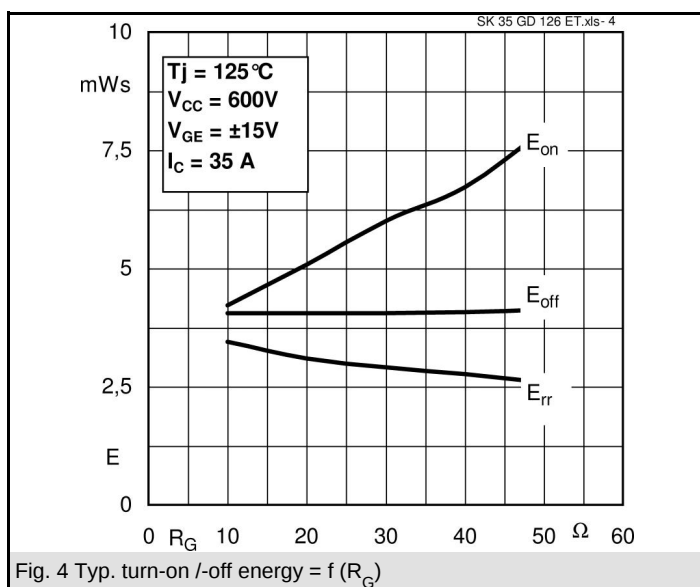
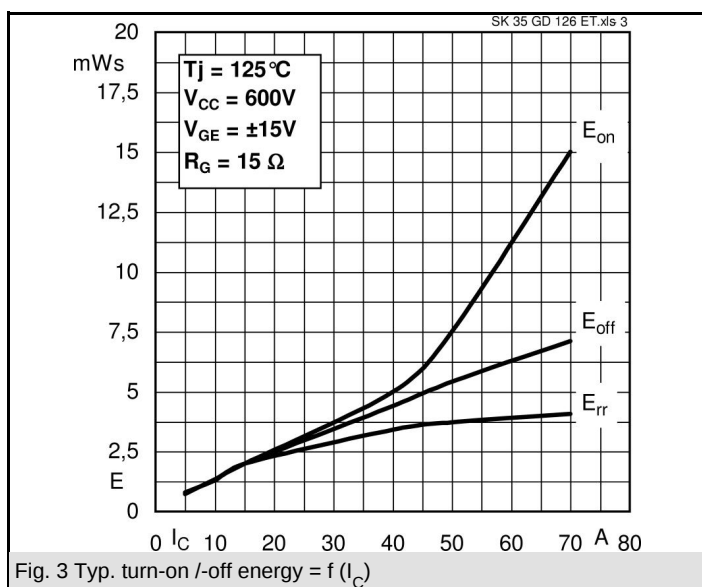
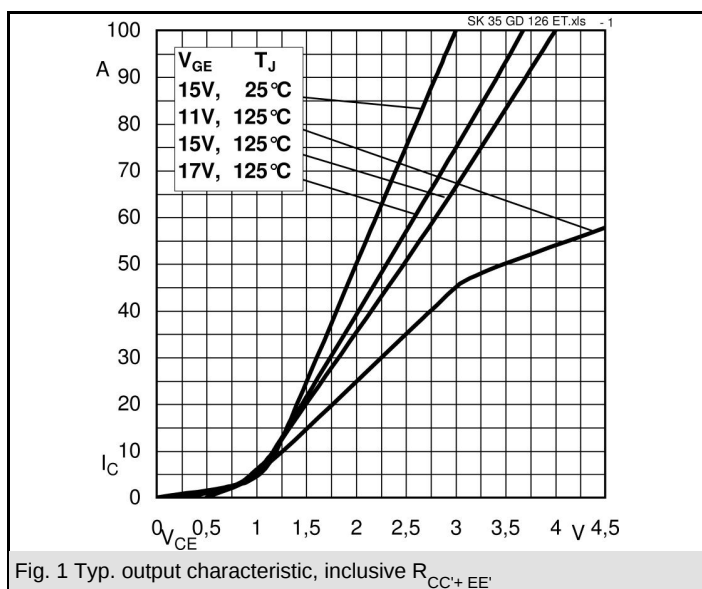
- Inverter

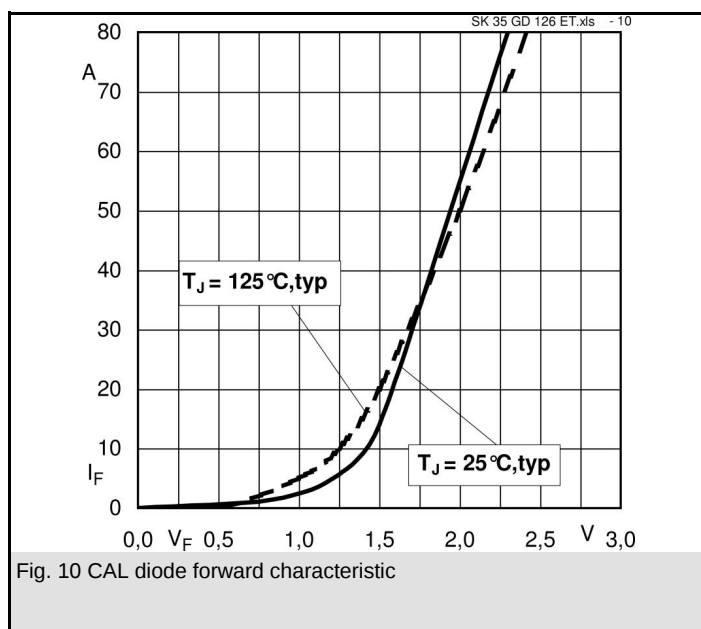
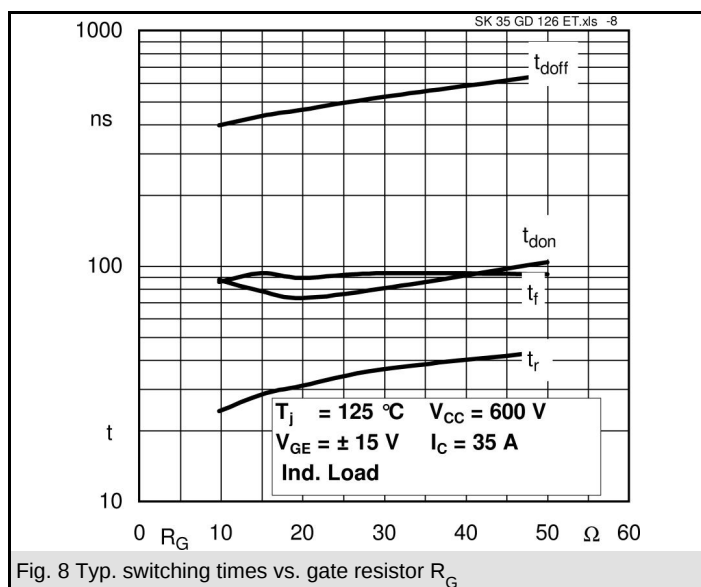
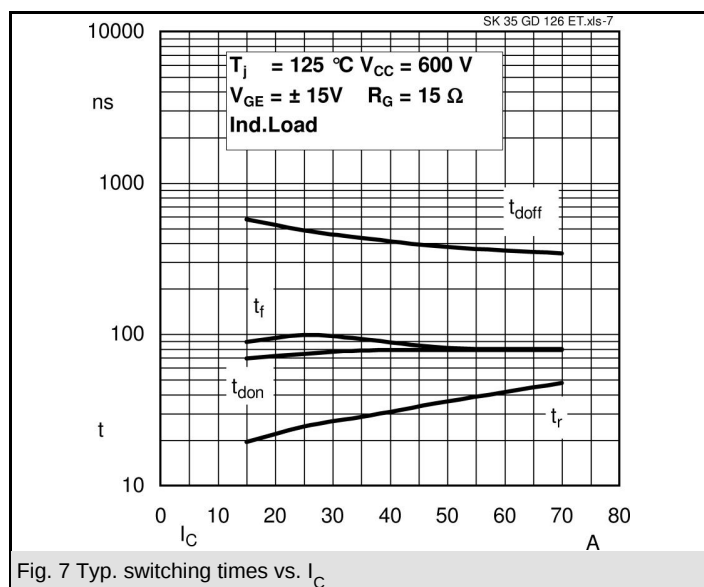


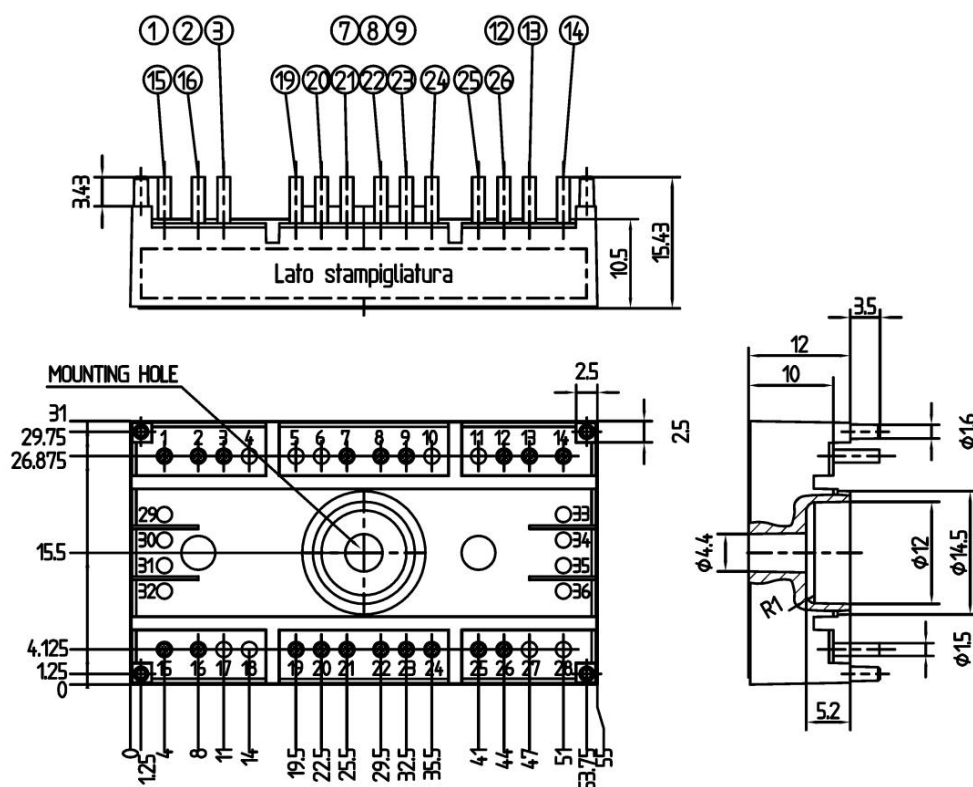
Characteristics		min.	typ.	max.	Units
Symbol	Conditions				
Inverse Diode					
$V_F = V_{EC}$	$I_{Fnom} = 35\text{ A}; V_{GE} = 0\text{ V}$ $T_j = 25\text{ }^{\circ}\text{C}_{chiplev.}$ $T_j = 125\text{ }^{\circ}\text{C}_{chiplev.}$		1,8 1,8	2,1	V V
V_{F0}	$T_j = 25\text{ }^{\circ}\text{C}$ $T_j = 125\text{ }^{\circ}\text{C}$		1 0,8	1,1	V V
r_F	$T_j = 25\text{ }^{\circ}\text{C}$ $T_j = 125\text{ }^{\circ}\text{C}$		23 31	29	mΩ mΩ
I_{RRM} Q_{rr} E_{rr}	$I_F = 35\text{ A}$ $di/dt = -1330\text{ A}/\mu\text{s}$ $V_{CC} = 600\text{ V}$ $T_j = 125\text{ }^{\circ}\text{C}$		43 7 2,9		A μC mJ
$R_{th(j-s)D}$	per diode			1,7	K/W
M_s	to heat sink	2,25		2,5	Nm
w			30		g
Temperature sensor					
R_{100}	$T_s = 100^{\circ}\text{C}$ ($R_{25} = 5\text{ k}\Omega$)		493±5%		Ω

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.







Case T52 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins: 2mm)

