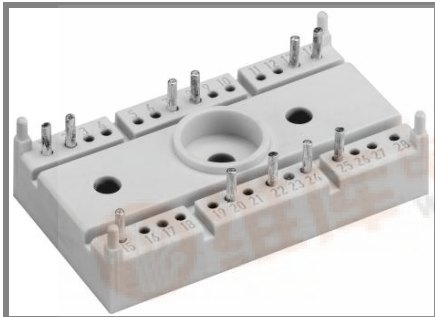


SK 25 GAD 063 T



SEMITOP® 3

IGBT Module

SK 25 GAD 063 T

Target Data

Features

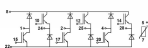
- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- N-channel homogeneous silicon structure (NPT-Non punch-through IGBT)
- High short circuit capability
- Low tail current with low temperature dependence
- UL recognized, file no. E 63 532

Typical Applications

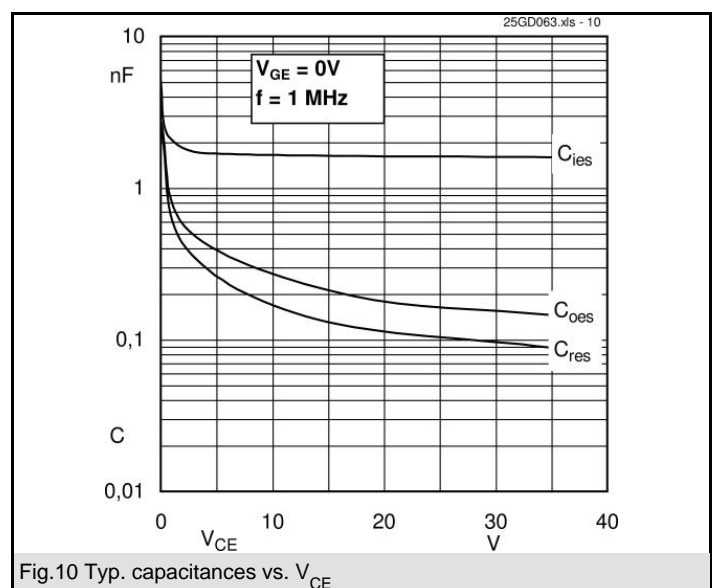
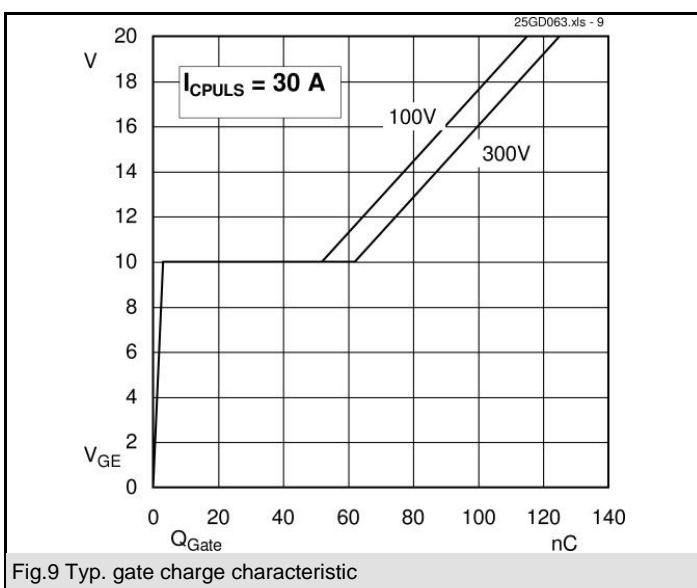
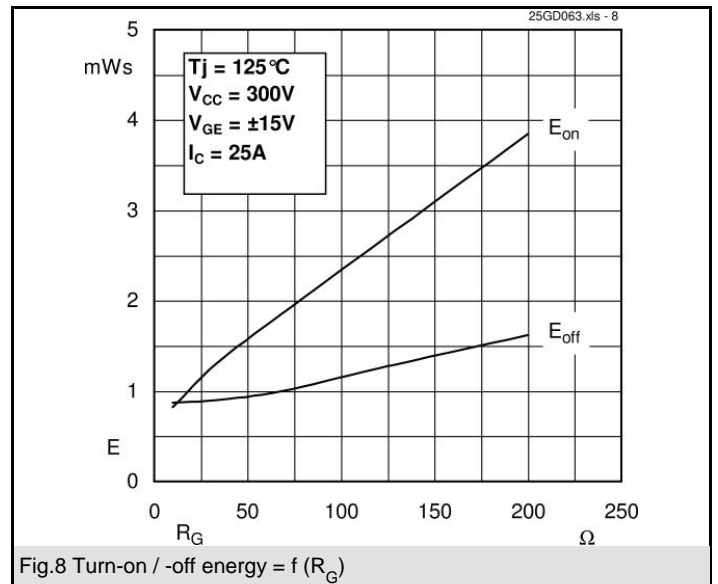
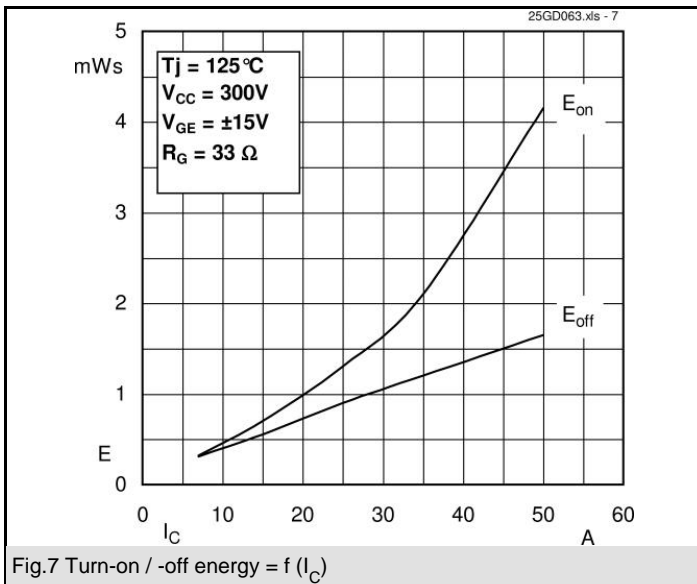
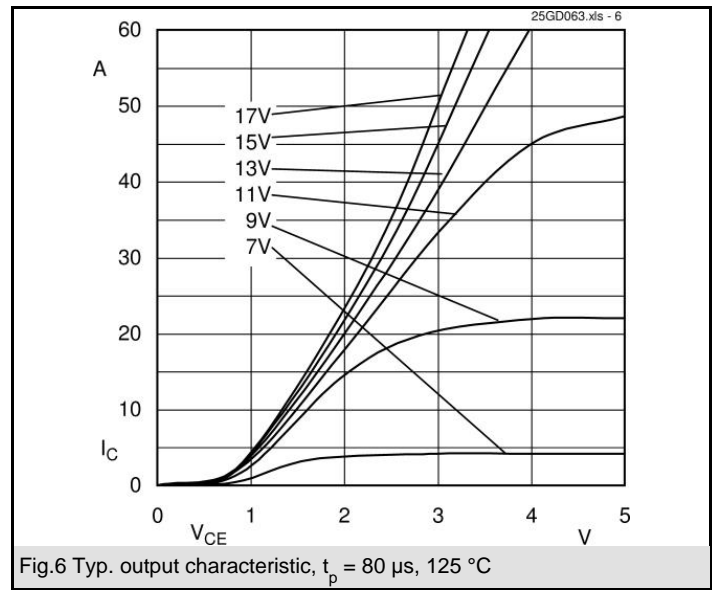
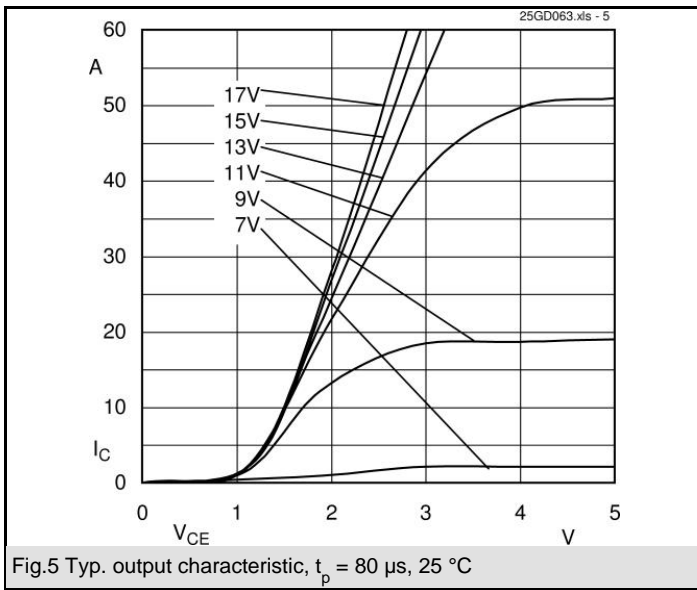
- Switching (not for linear use)
- Inverter
- Switched mode power supplies
- UPS

Absolute Maximum Ratings		T _s = 25 °C, unless otherwise specified		
Symbol	Conditions	Values		Units
IGBT				
V _{CES}		600		V
V _{GES}		± 20		V
I _C	T _s = 25 (80) °C;	30 (21)		A
I _{CM}	t _p < 1 ms; T _s = 25 (80) °C;	60 (42)		A
T _j		- 40 ... + 150		°C
Freewheeling CAL diode				
I _F	T _s = 25 (80) °C;	36 (24)		A
I _{FM} = - I _{CM}	t _p < 1 ms; T _s = 25 (80) °C;	72 (48)		A
T _j		- 40 ... + 150		°C
T _{stg}		- 40 ... + 125		°C
T _{sol}	Terminals, 10 s	260		°C
V _{isol}	AC 50 Hz, r.m.s. 1 min. / 1 s	2500 / 3000		V

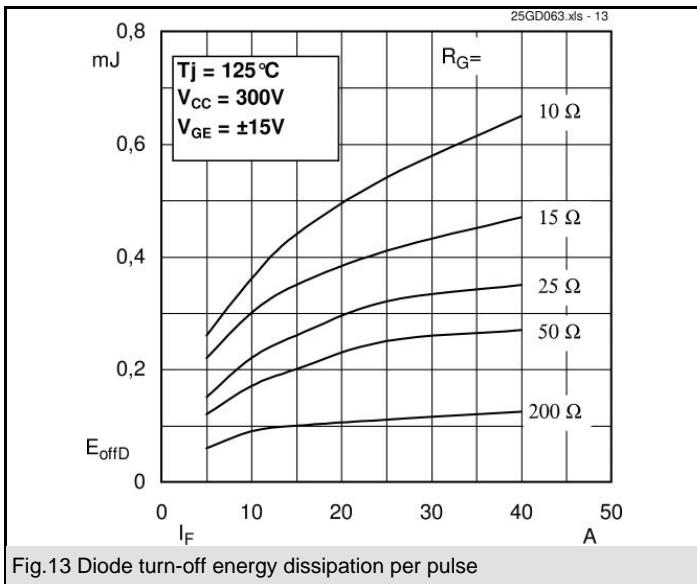
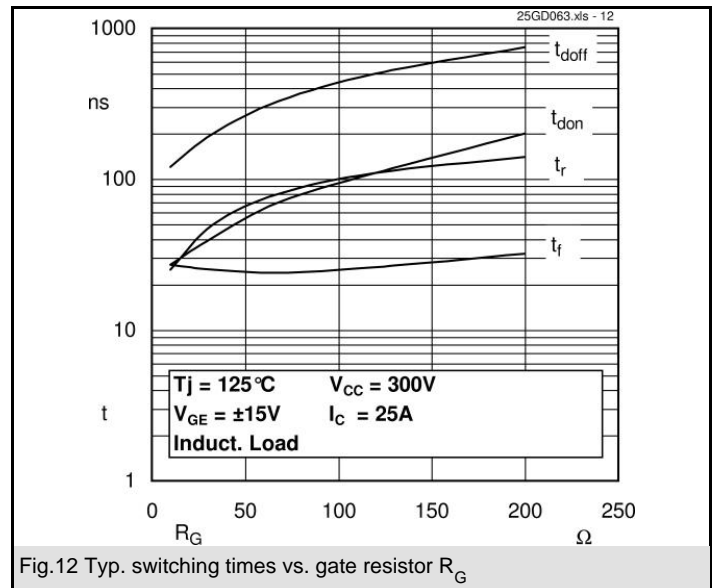
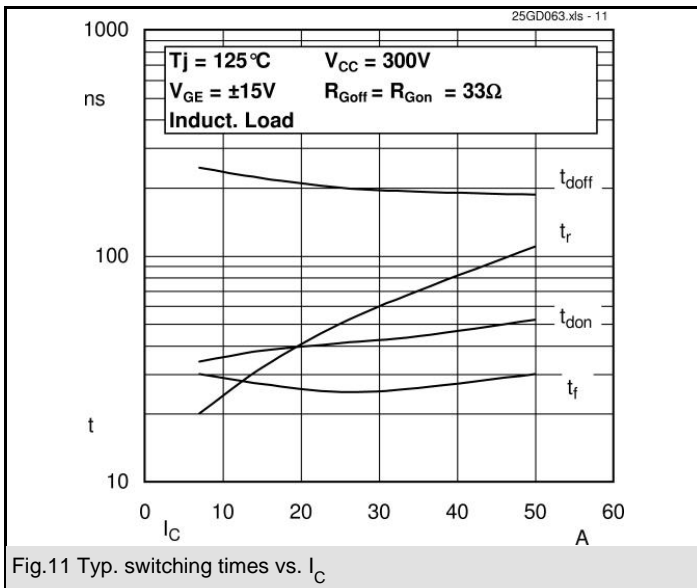
Characteristics		T _s = 25 °C, unless otherwise specified			
Symbol	Conditions	min.	typ.	max.	Units
IGBT					
V _{CE(sat)}	I _C = 20 A, T _j = 25 (125) °C		1,8 (1,9)	2,2 (2,4)	V
V _{GE(th)}	V _{CE} = V _{GE} ; I _C = 0,0007 A	4,5	5,5	6,5	V
C _{ies}	V _{CE} = 25 V; V _{GE} = 0 V; 1 MHz		1,6		nF
R _{th(j-s)}	per IGBT per module			1,4	K/W
under following conditions:					
t _{d(on)}	V _{CC} = 300 V, V _{GE} = ±15 V		40		ns
t _r	I _C = 25 A, T _j = 125 °C		50		ns
t _{d(off)}	R _{Gon} = R _{Goff} = 33 Ω		200		ns
t _f			25		ns
E _{on} + E _{off}	Inductive load		2,2		mJ
Freewheeling CAL diode					
V _F = V _{EC}	I _F = 25 A; T _j = 25 (125) °C		1,45 (1,4)	1,7 (1,75)	V
V _(TO)	T _j = (125) °C		(0,85)	(0,9)	V
r _T	T _j = (125) °C		(22)	(32)	mΩ
R _{th(j-s)}				1,7	K/W
under following conditions:					
I _{RRM}	I _F = 25 A; V _R = 300 V		16		A
Q _{rr}	di _F /dt = -500 A/μs		2		μC
E _{off}	V _{GE} = 0 V; T _j = 125 °C		0,25		mJ
Mechanical data					
M1	mounting torque			2,5	Nm
w			30		g
Case	SEMITOP® 3		T 57		



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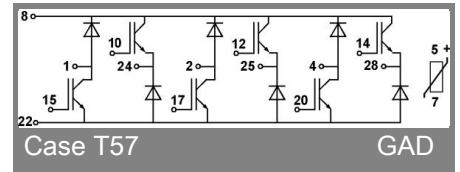
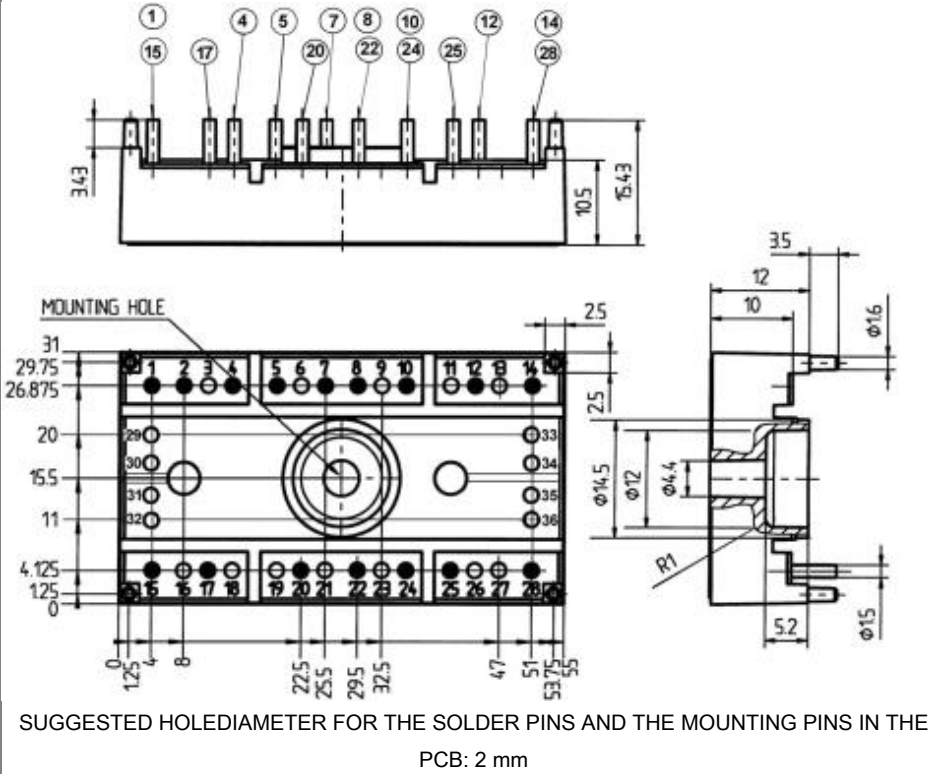
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UL Recognized
File no. E 63532

Dimensions in mm



Case T 57

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.