

SEMITRANS® 3

Ultra Fast IGBT Modules

SKM 200GB125D

SKM 200GAL125D

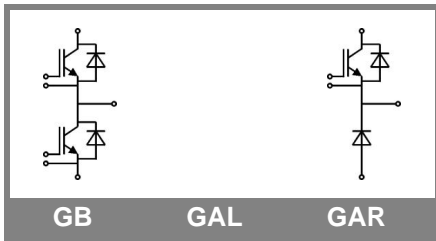
SKM 200GAR125D

Features

- High switching speed
- Low switching losses
- High current capability
- High thermal conductivity
- High reliability
- Low inductance
- High efficiency
- High power density
- High temperature capability
- High dv/dt capability
- High di/dt capability
- High safety
- High performance
- High quality
- High precision
- High accuracy
- High resolution
- High stability
- High repeatability
- High consistency
- High uniformity
- High homogeneity
- High isotropy
- High anisotropy
- High symmetry
- High asymmetry
- High balance
- High imbalance
- High equilibrium
- High disequilibrium
- High stability
- High instability
- High consistency
- High inconsistency
- High uniformity
- High non-uniformity
- High homogeneity
- High non-homogeneity
- High isotropy
- High anisotropy
- High symmetry
- High asymmetry
- High balance
- High imbalance
- High equilibrium
- High disequilibrium

Typical Applications*

- Inverter
- Motor drive
- Power supply
- Switching power supply
- DC-DC converter
- AC-DC converter
- DC-AC converter
- AC-AC converter
- Power factor correction
- Active power filter
- Harmonic filter
- Line reactor
- Common mode choke
- Differential mode choke
- EMI filter
- RFI filter
- Surge protector
- Voltage divider
- Current divider
- Voltage regulator
- Current regulator
- Temperature sensor
- Pressure sensor
- Position sensor
- Speed sensor
- Torque sensor
- Power sensor
- Energy sensor
- Power factor sensor
- Harmonic sensor
- Line reactor sensor
- Common mode choke sensor
- Differential mode choke sensor
- EMI sensor
- RFI sensor
- Surge sensor
- Voltage sensor
- Current sensor
- Temperature sensor
- Pressure sensor
- Position sensor
- Speed sensor
- Torque sensor
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- Line reactor sensor
- Common mode choke sensor
- Differential mode choke sensor
- EMI sensor
- RFI sensor
- Surge sensor



GB

GAL

GAR

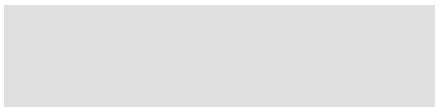
Absolute Maximum Ratings		9 E >F G5 E! / fff" " (fi) & \$ fi " * fi, \$ \$fi'	
Symbol	Conditions	Values	Units
IGBT			
H _{5D#}	9 ₁ E >F G5	>??	H
I ₅	9 ₁ E : F? G5	9 ₁ fi E >F G5	6
		9 ₁ fi E K? G5	6
I _{5CL}	I _{5CL} E >0 _{15/12}	<??	6
H _{MD#}		N >?	H
(..)	H ₅₅ E /?? HOH _{MD} P >? HO 9 ₁ E : >F G5 H _{5D#} O : >?? H	: ?	R*

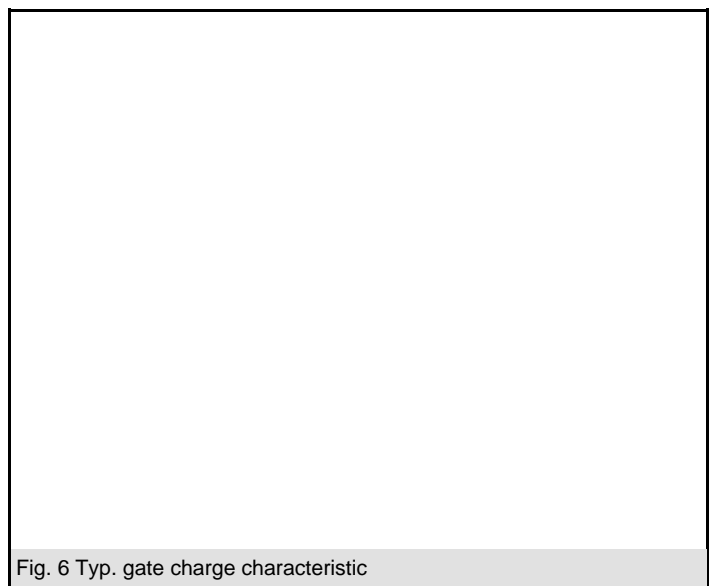
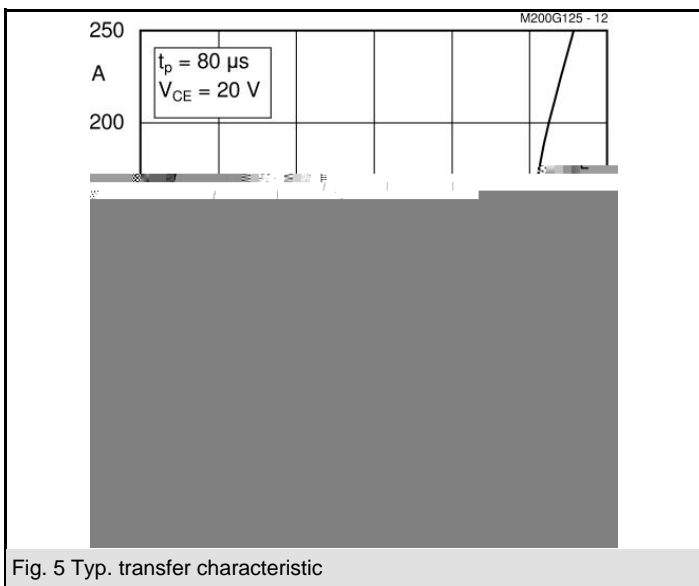
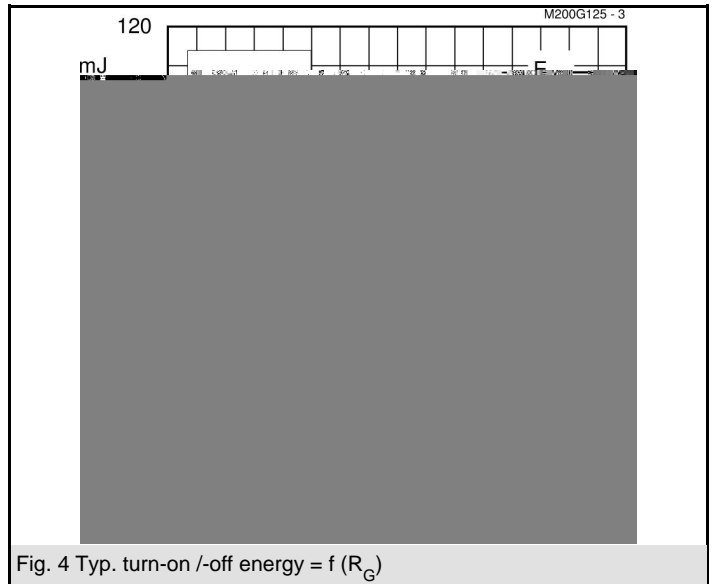
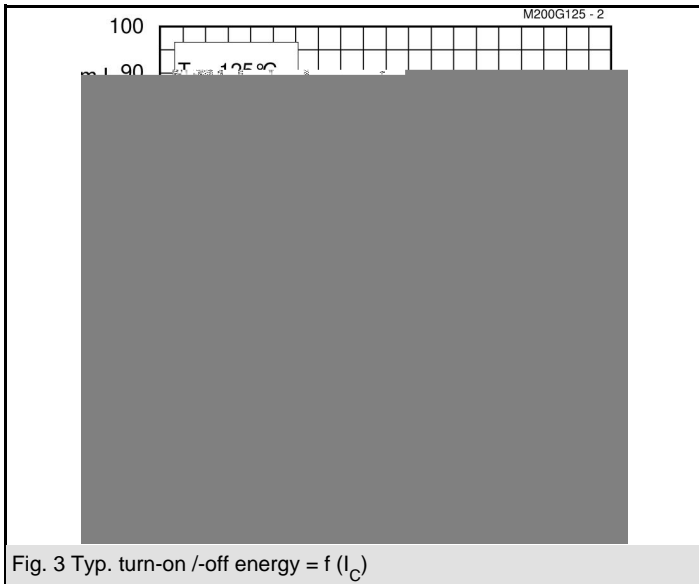
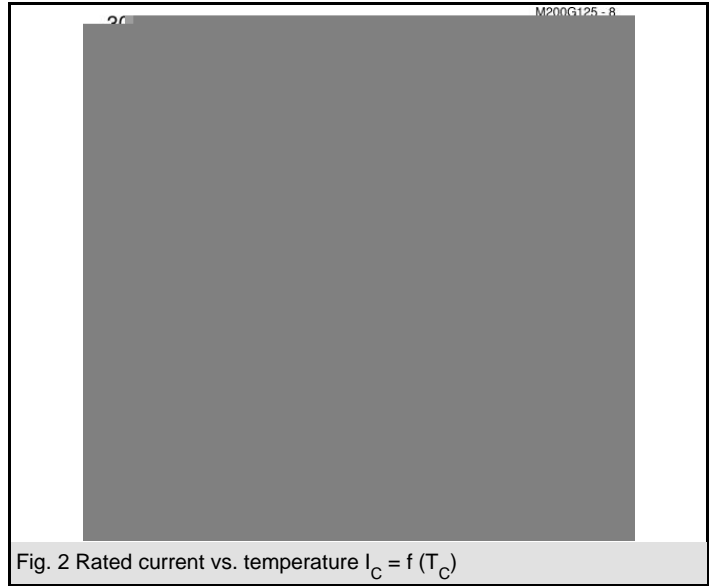
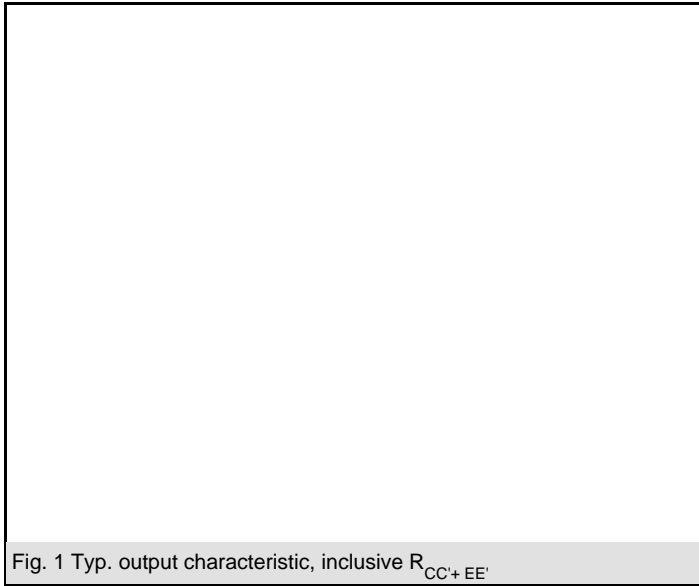
Inverse Diode		9 E >F G5 E! / fff" " (fi) & \$ fi " * fi, \$ \$fi'	
Symbol	Conditions	Values	Units
I ₂	9 ₁ E : F? G5	9 ₁ fi E >F G5	6
		9 ₁ fi E K? G5	6
I _{2CL}	I _{2CL} E >0 _{12/12}	<??	6
I _{2#L}	(. E : ? Z " O \$ S	9 ₁ E : F? G5	6

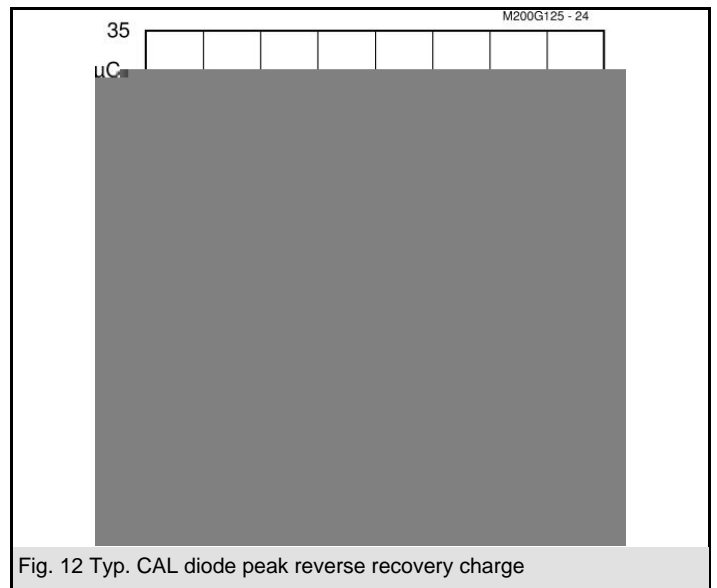
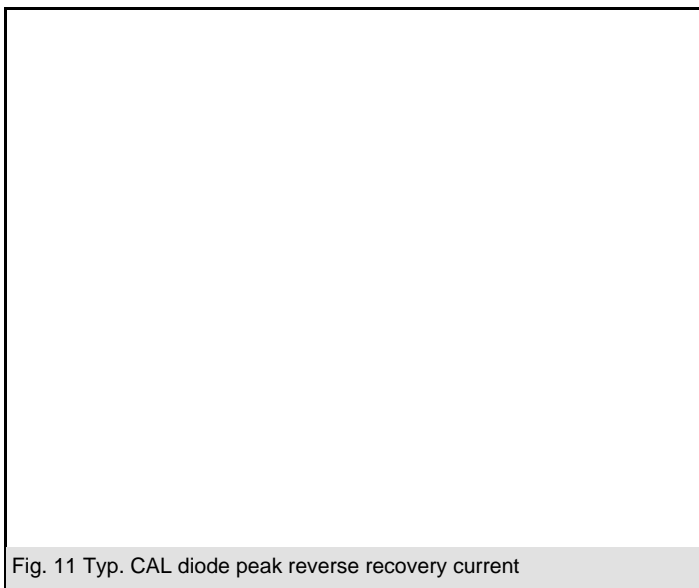
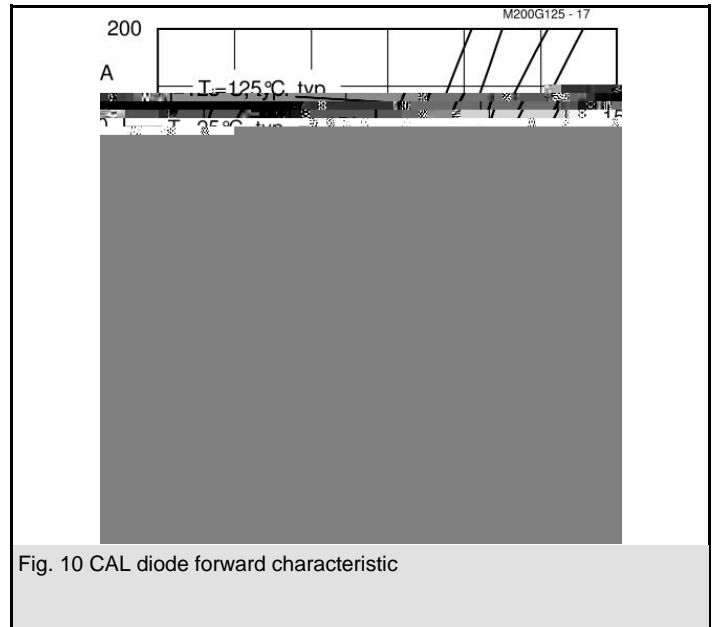
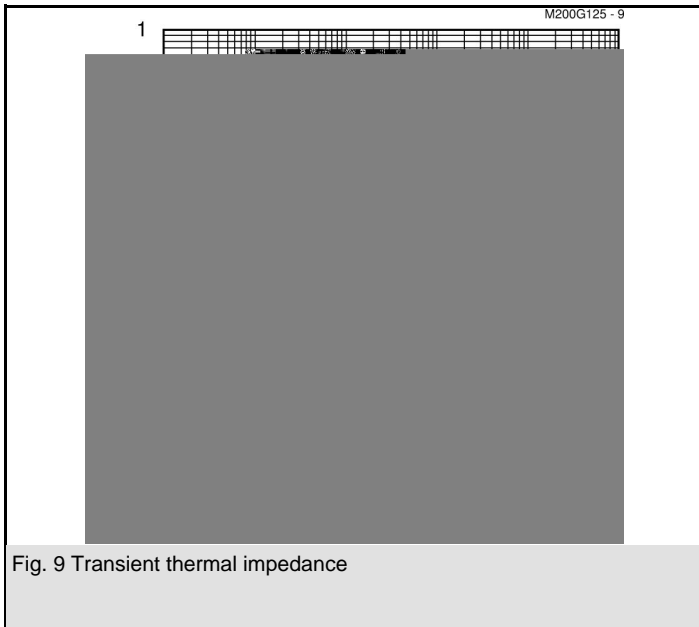
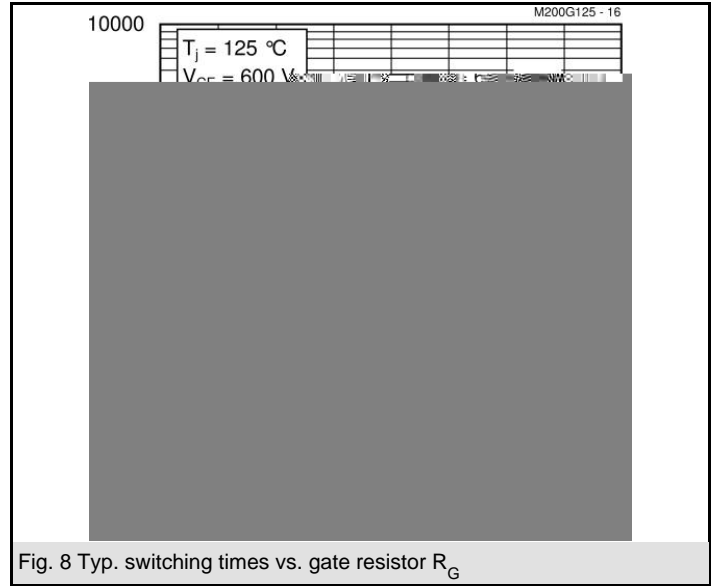
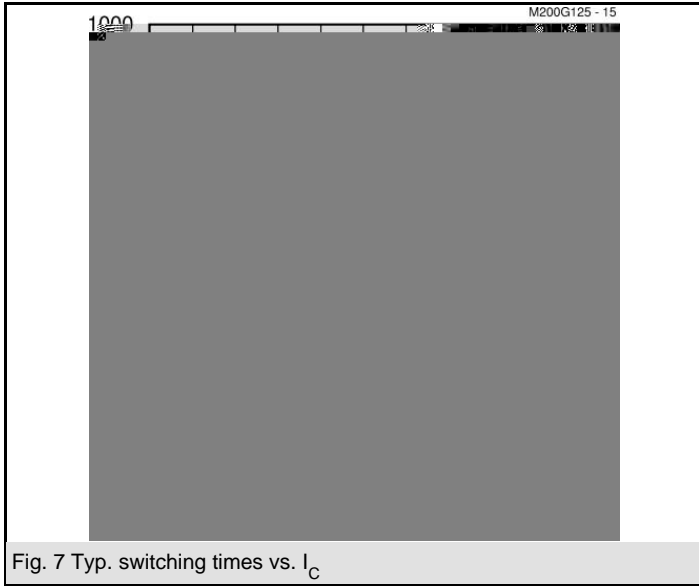
Freewheeling Diode		9 E >F G5 E! / fff" " (fi) & \$ fi " * fi, \$ \$fi'	
Symbol	Conditions	Values	Units
I ₂	9 ₁ E G5	9 E >F G5	6
		9 E K? G5	6
I _{2CL}	I _{2CL} E >0 _{12/12}	<??	6
I _{2#L}	(. E : ? Z " O	9 ₁ E : F? G5	6

Module		9 E >F G5 E! / fff" " (fi) & \$ fi " * fi, \$ \$fi'	
Symbol	Conditions	Values	Units
I _{CL#}		F??	6
9 _{4l}		UT? SSV : F?	G5
9 _z		UT? SSV : >F	G5
H _{5lfi}	65 E : Z \$ S	T???	H

Characteristics		9 E >F G5 E! / fff" " (fi) & \$ fi " * fi, \$ \$fi'			
Symbol	Conditions	min.	typ.	max.	Units
IGBT					
H _{MD} (=	H _{MD} E H _{5D} E I ₅ E / Z 6	Tf	Ff	/Ff	H
I _{5D#}	H _{MD} E ? H E H _{5D} E H _{5D#}	9 ₁ E >F G5	? E F	? E F	Z 6
H _{5D?}		9 ₁ E >F G5	: Ff	: E Ff	H
		9 ₁ E : >F G5			H
)5D	H _{MD} E : F H	9 ₁ E >F G5	: >	: T	Z X
		9 ₁ E : >F G5			Z X
H _{5D} : i (=	I _{5/12} E : F? 6 E H _{MD} E : F H 9 ₁ E G5 : \$ fi 4S		<<	<E F	H
S _{fi} S _{lfi} S _{fi}	H _{5D} E >F E H _{MD} E ? H	. E : L + B	: ?	: <	/ 2
			: Ff	>	/ 2
			? K	: E	/ 2
Y _M	H _{MD} E ? H UV >? H		: <??		/ 5
C _M (9 ₁ E G5		>Ff		Z
C _l / = (D _l /	C _M / E T X	H ₅₅ E /?? H I ₅ E : F? 6	WF	</	/ "
			: T		Z [
C _l : i = (D _l : ..	C _M .. E T X	9 ₁ E : >F G5 H _{MD} E N : F H	T >?	>F	/ "
					Z [
C _l : i =	* fi) 1M89			? E \] ^







51 "fi 7 F/

