SEMITRANS® 3

Ultra Fast IGBT Modules

SKM 400GB125D

SKM 400GAL125D

SKM 400GAR125D

Features

- "#$ %&'()*+&),)+-,
- ./#0* *+%1)(00,&* $%*/ 1#$ *,23,0+*(0, ',3,&',&),
- 4%5/ -/#0*)%0)(%*)+3+6%1%*78 -,19 1%2%*%&5 *# : ; <)&#2
- =+-* > -#9* %&?,0-, @A" '%#',-
- <-#1+*,')#33,0 6+-,31+*, (-%&5 BC@ B%0,)* @#33,0 C#&'%&5 D,)/&#1#57
- "+05,)1,+0+&), EFG 2 2H +&')0,,3+5, '%-*+&),- EIJ 9 %-"+05,"&&

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! ./#0* *+%1)(00,&* $%*/ 1#$ *, 23,0+*(0, ',3,&',&),

! 4%5/ -/#0*)%0)(%*)+3+6%1%*78 -,19 1%2%*%&5 *# : ; <)&#2

! =+-* > -#9* %&?,0-, @A" '%#',-

! <-#1+*,')#33,0 6+-,31+*, (-%&5 BC@ B%0,)* @#33,0 C#&'%&5 D,)/&#1#57

! "+05,)1,+0+&), EFG 2 2H +&')0,,3+5, '%-*+&),- EIJ 2 2H

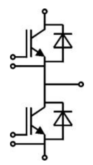
Typical Applications*

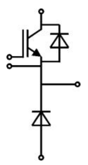
! .$%*)/,' 2#', 3#$,0 -(331%,- +* 9-$ KIJL4M

! N,-#&+&* %&?,0*,0- (3 *# FJJ L4M

! <&'()*%?, /,+*%&5

! O1,)*0#&%) $,1',0- +* 9-$ K IJ L4M





GB GAL GAR

Characteristics					
Symbol	**Conditions**	**min.**	**typ.**	**max.**	**Units**
Inverse Diode					
S= P SO@	<=&#2 P GJJ A[SYO P J S DT P IQ R@)/%31,?`		I	I8Q	S
	DT P FIQ R@)/%31,?`		F8W		S
S=J	DT P IQ R@		F8F	F8I	S
	DT P FIQ R@				S
0=	DT P IQ R@		G	V8G	2 d

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- 4%5/ -/#0*)%0)(%*)+3+6%1%*78 -,19 1%2%*%&5 *# : ; <)&#2
- =+-* > -#9* %&?,0-, @A" '%#',-
- <-#1+*,')#33,0 6+-,31+*, (-%&5 BC@ B%0,)* @#33,0 C#&'%&5 D,)/&#1#57
- "+05,)1,+0+&), EFG 2 2H +&')0,,3+5, '%-*+&),- EIJ 2 2H

Typical Applications*

- .$%*)/,' 2#', 3#$,0 -(331%,- +* 9-$ KIJL4M
- N,-#&+&* %&?,0*,0- (3 *# FJJ L4M
- <&'()*%?, /,+*%&5
- O1,)*0#&%) $,1',0- +* 9-$ K IJ L4M

GB GAL GAR

Z_{th} Symbol	Conditions	Values	Units
$Z_{th(j-c)I}$			
N%	%PF	G:	2Lij
N%	%PI	FJ8Q	2Lij
N%	%PG	G	2Lij
N%	%PV	J8Q	2Lij
*+(%	%PF	J8JcVV	-
*+(%	%PI	J8JJcW	-
*+(%	%PG	J8JJF:	-
*+(%	%PV	J8JJJI	-
$Z_{th(j-c)D}$			
N%	%PF	cQ	2Lij
N%	%PI	GW	2Lij
N%	%PG	FJ8:	2Lij
N%	%PV	F8V	2Lij
*+(%	%PF	J8JGW:	-
*+(%	%PI	J8JIJF	-
*+(%	%PG	J8JJF	-
*+(%	%PV	J8JJG	-

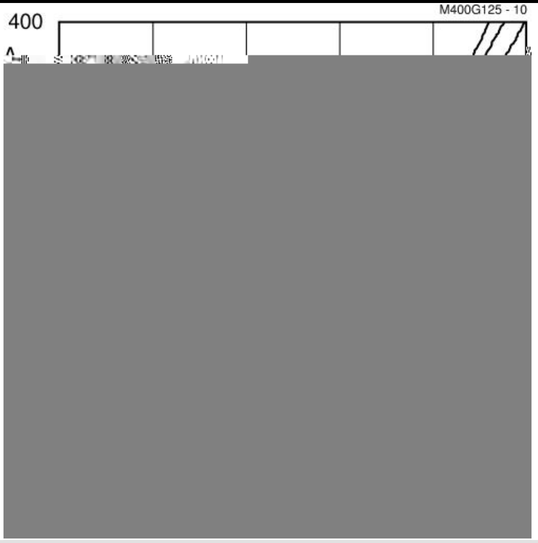


Fig. 1 Typ. output characteristic, inclusive $R_{CC'+EE'}$

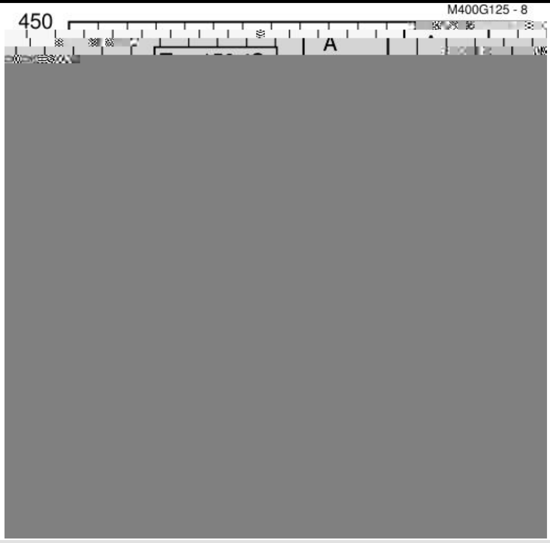


Fig. 2 Rated current vs. temperature $I_C = f(T_C)$

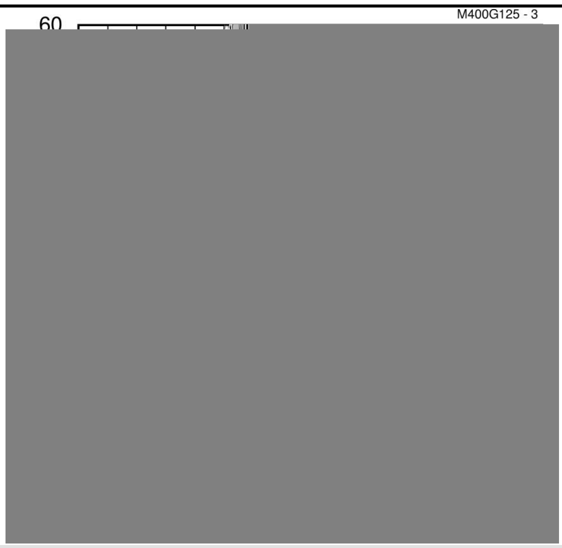


Fig. 3 Typ. turn-on /-off energy = f (I_C)

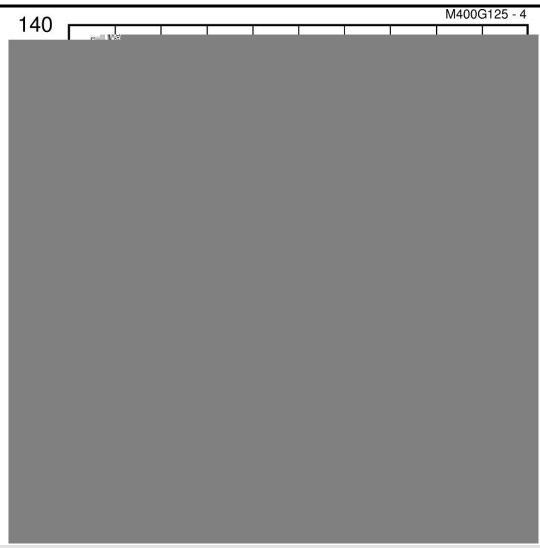


Fig. 4 Typ. turn-on /-off energy = f (R_G)

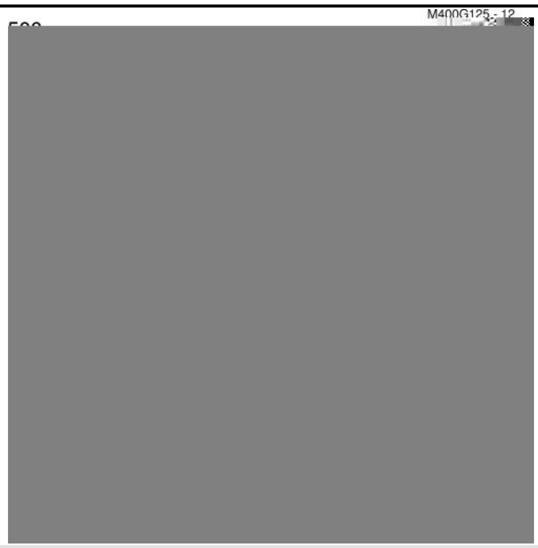
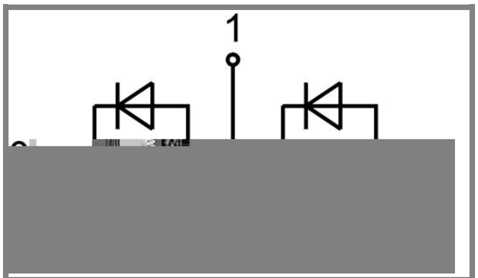


Fig. 5 Typ. transfer characteristic

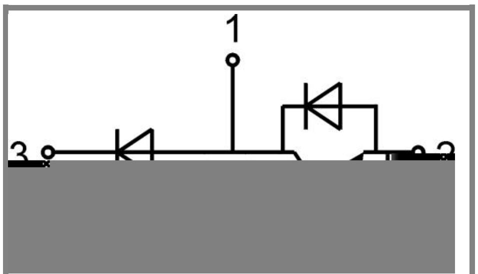
Fig. 6 Typ. gate charge characteristic

UL Recognized File 63 532

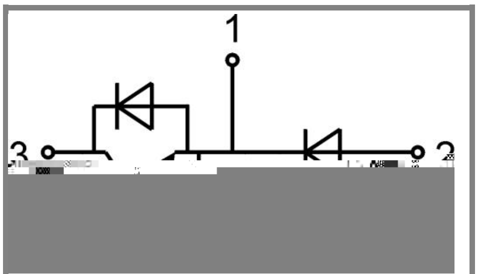
@+-, B Q:



YC @+-, B Q:



YA" @+-, B Qc Em B Q:H



YAN @+-, B QW Em B Q: H

