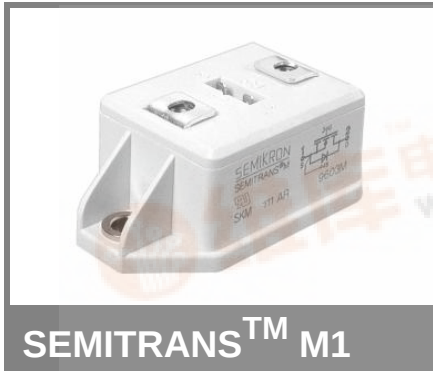


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Absolute Maximum Ratings		$T_c = 25\text{ }^{\circ}\text{C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
V_{DS}	$T_s = 25\text{ (80) }^{\circ}\text{C}$ 1 ms	100	V
I_D		200 (150)	A
I_{DM}		600	A
V_{GS}		± 20	V
T_{vj} , (T_{stg})		- 40 ... + 150 (125)	$^{\circ}\text{C}$
V_{isol}	AC, 1 min.	2500	V
Inverse diode			
$I_F = -I_S$		200	A
$I_{FM} = -I_{SM}$		600	A

Power MOSFET Modules

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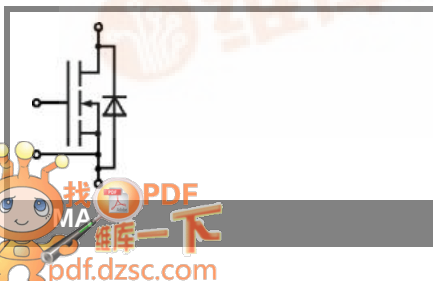
Features

- N Channel, enhancement mode
- Avalanche characteristic
- Short connections and built-in gate resistors to suppress internal oscillations even in critical applications
- Isolated copper baseplate
- All electrical connections on top for easy busbaring
- Large clearances (10 mm) and creepage distances (20 mm)
- UL recognized, file no. E 63 532

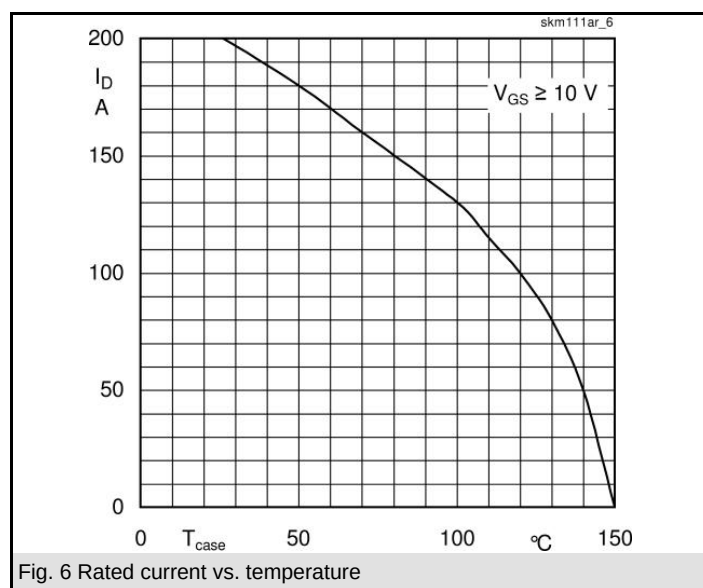
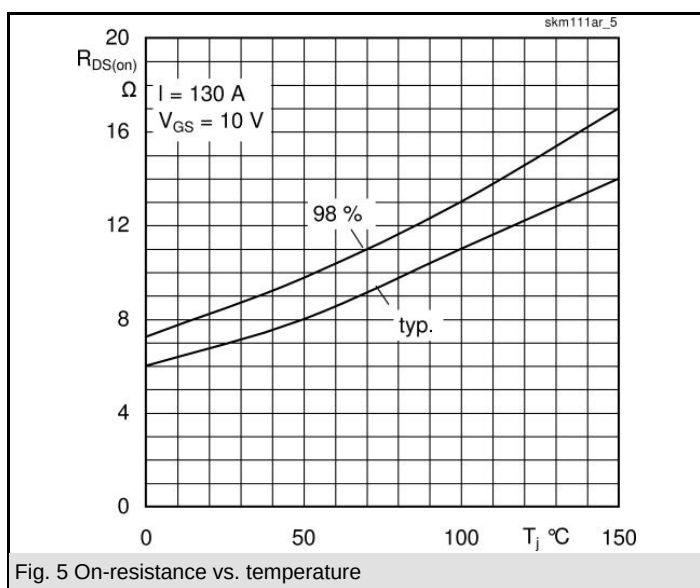
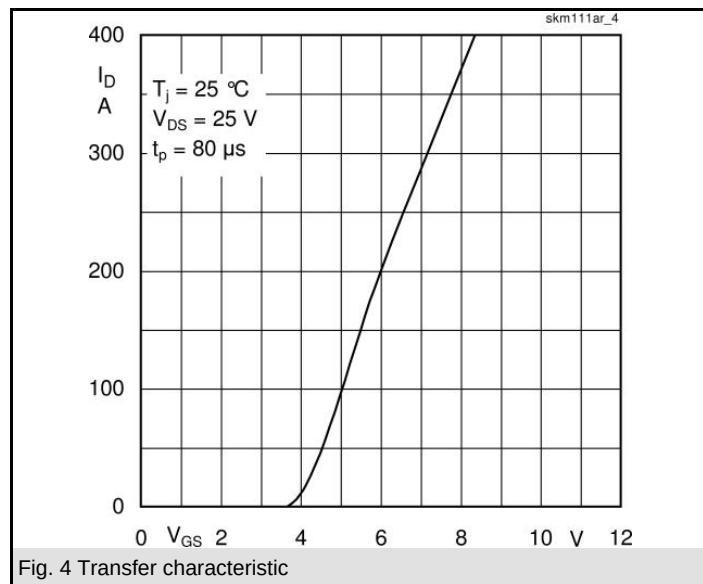
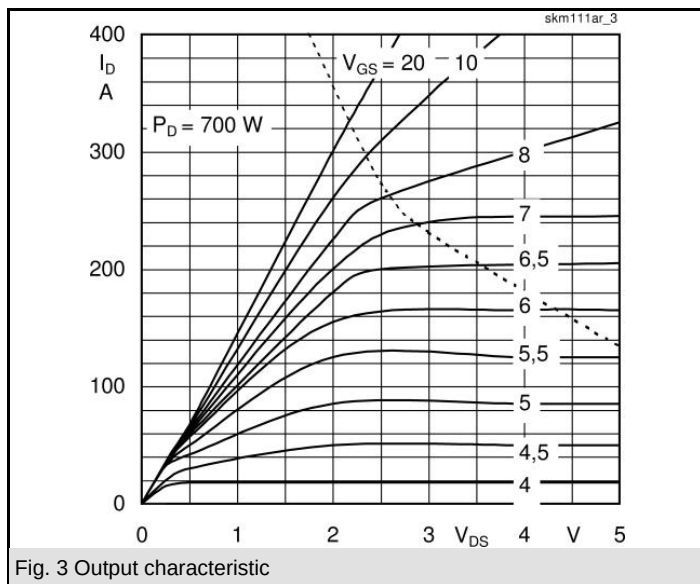
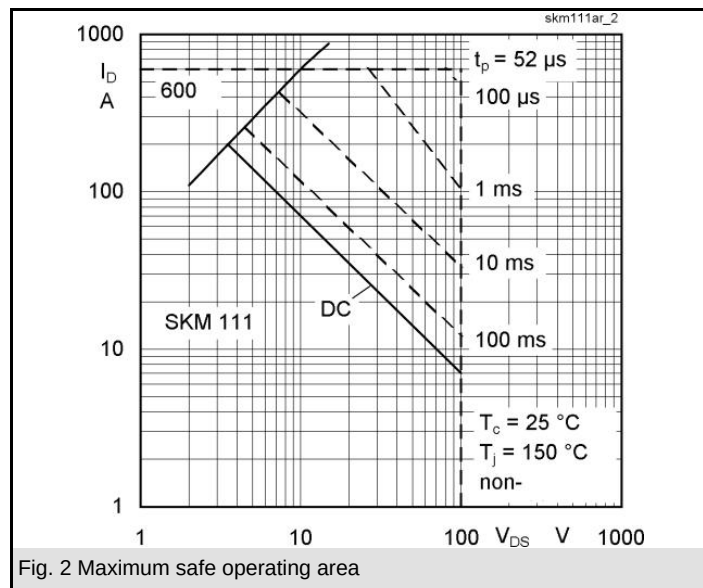
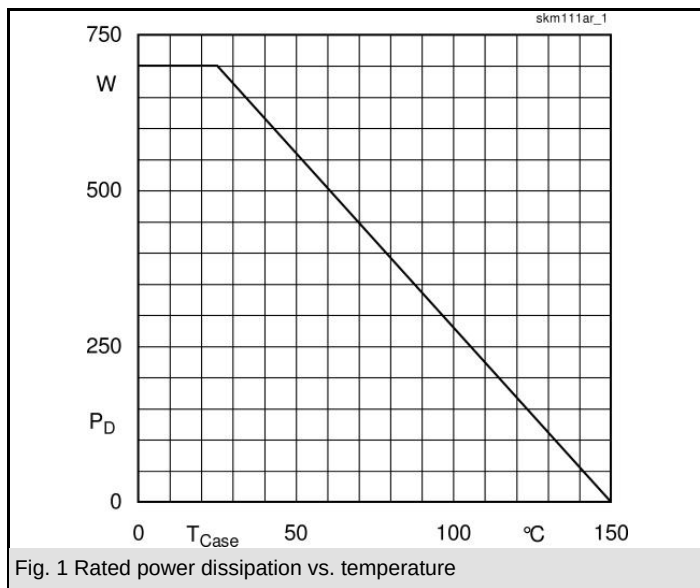
Typical Applications

- Switched mode power supplies
- DC servo and robot drives
- DC choppers
- UPS equipment
- Not suitable for linear amplification

Characteristics		$T_c = 25\text{ }^\circ\text{C}$, unless otherwise specified		
Symbol	Conditions	min.	typ.	max.
$V_{(BR)DSS}$	$V_{GS} = 0\text{ V}$, $I_D = 0,25\text{ mA}$	100		
$V_{GS(th)}$	$V_{GS} = V_{DS}$, $I_D = 1\text{ mA}$	2,1	3	4
I_{DSS}	$V_{GS} = 0\text{ V}$, $V_{DS} = 100\text{ V}$, $T_j = 25\text{ (125) }^\circ\text{C}$		50 (300)	250 (1000)
I_{GSS}	$V_{GS} = 20\text{ V}$, $V_{DS} = 0\text{ V}$		10	100
$R_{DS(on)}$	$V_{GS} = 10\text{ V}$, $I_D = 130\text{ A}$		7	8,5
g_{fs}	$V_{DS} = 25\text{ V}$, $I_D = 130\text{ A}$	60	75	
C_{CHC}	$V_{GS} = 0$, $V_{DS} = 25\text{ V}$, $f = 1\text{ MHz}$		10	160
C_{iss}			5	13
C_{oss}			1,8	7,5
C_{rss}				2,7
L_{DS}				20
$t_{d(on)}$	$V_{DD} = 50\text{ V}$, $I_D = 130\text{ A}$,		60	
t_r	$V_{GS} = 10\text{ V}$, $R_G = 3,3\text{ }\Omega$		220	
$t_{d(off)}$			270	
t_f			200	
Inverse diode				
V_{SD}	$I_F = 400\text{ A}$; $V_{GS} = 0\text{ V}$		1,25	1,6
t_{rr}	$T_j = 25\text{ (150) }^\circ\text{C}$		400	
Q_{rr}	$T_j = 25\text{ }^\circ\text{C}$		3,5	
I_{rr}	$T_j = 150\text{ }^\circ\text{C}$			
Thermal characteristics				
$R_{th(j-c)}$	per MOSFET		0,18	K/W
$R_{th(c-s)}$	M_s , surface $10\text{ }\mu\text{m}$, per module		0,05	K/W
Mechanical data				
M_s	to heatsink (M6)	4	5	Nm
M_t	for terminals (M5)	2,5	3,5	Nm
w			130	g



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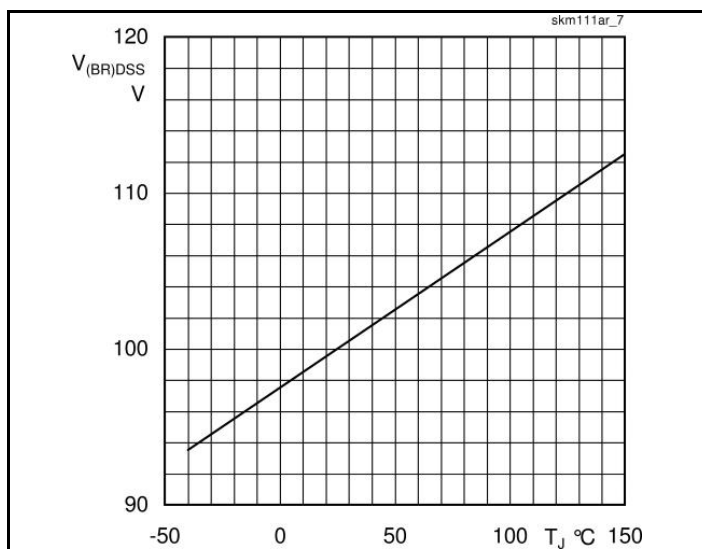


Fig. 7 Brakdown voltage vs. temperature

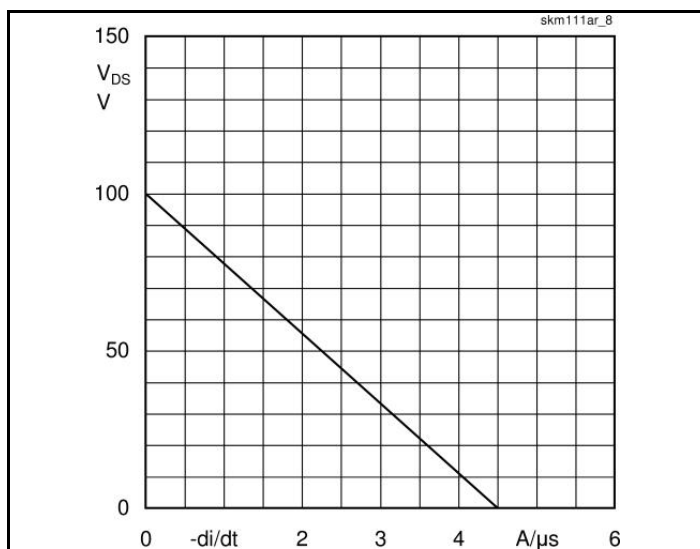


Fig. 8 Drain-source voltage derating

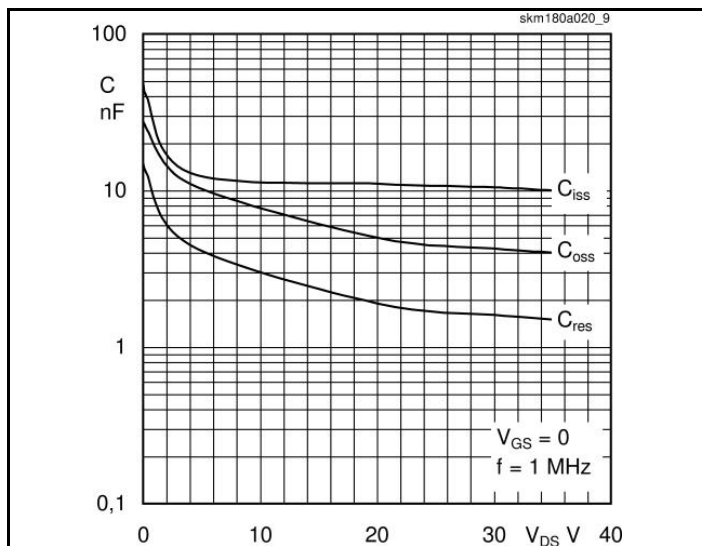


Fig. 9 Capacitances vs. drain-source voltage

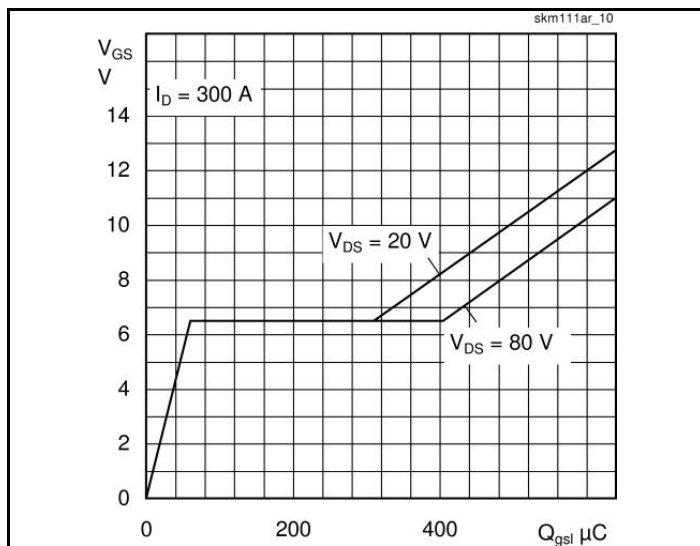


Fig. 10 Gate charge characteristic

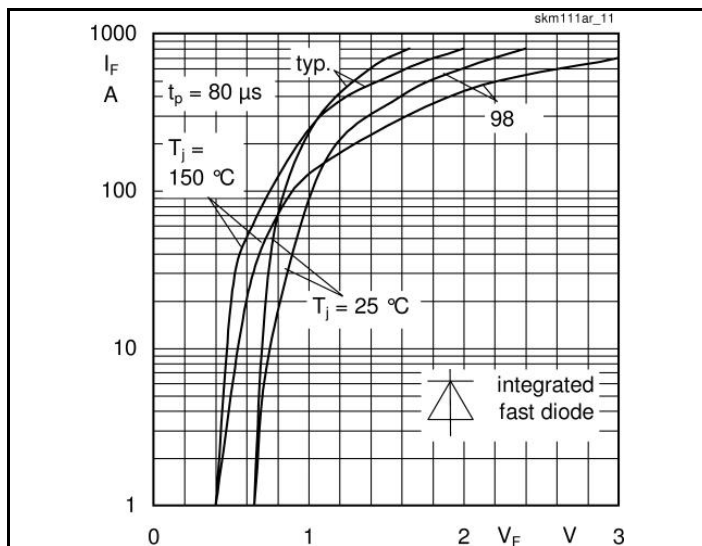


Fig. 11 Diode forward characteristic

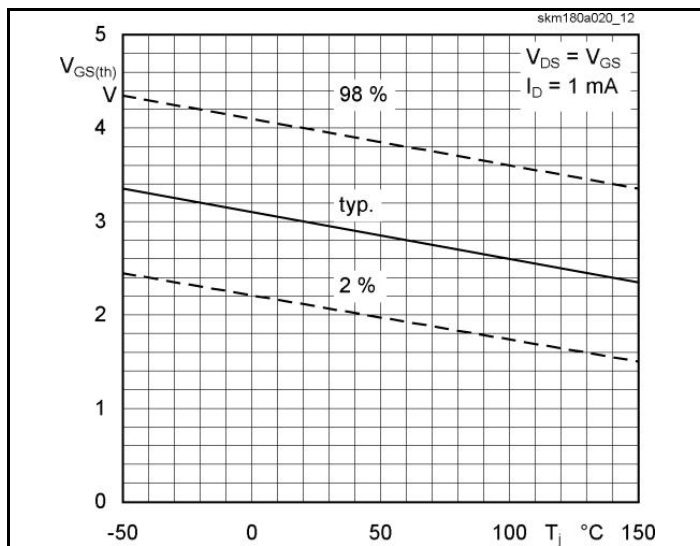
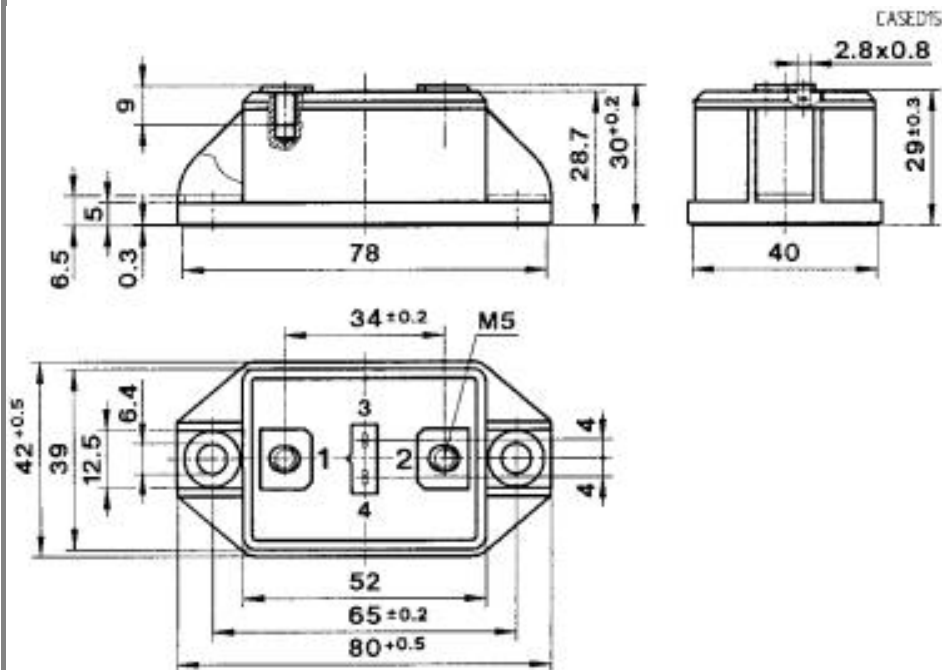


Fig. 14 Gate-source threshold voltage

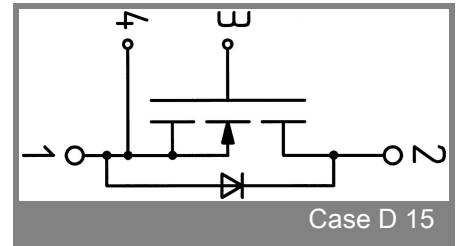
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UL Recognized
File no. E 63 532

Dimensions in mm



Case D15



Case D 15

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

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