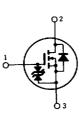
2SK682, 2SK683

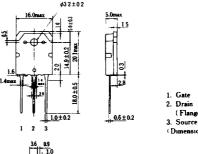
SIEGNON GHANNEL THOS FET

HIGH SPEED POWER SWITCHING

■ FEATURES

- Low On-Resistance
- High Speed Switching
- Low Drive Current
- No Secondary Breakdown
- Suitable for Switching Regulator, DC-DC Converter and Motor Driver







(TO-3P)

POWER VS. **TEMPERATURE DERATING**

(Flange)

■ ABSOLUTE MAXIMUM RATINGS $(Ta=25^{\circ}C)$

Item	Symbol	2SK682	2SK683	Unit
Drain-Souree Voltage	Voss	450	500	V
Gate-Source Voltage	Vass	±20		V
Drain Current	ID	12		Α
Drain Peak Current	In (pulse) *	48		Α
Body-Drain Diode	,	12		Α
Reverse Drain Current	IDR			A
Channel Dissipetion	Pch**	100		W
Channel Temperature	Teh	150		.c
Storage Temperature	Teta	-55~+150		,c

[•]PW≤10µs, duty cycle≤1%

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120 * tion Pea Dissipati Channel Case Temperature $T_C : \mathbb{C}$

ELECTRICAL CHARACTERISTICS $(Ta=25^{\circ}C)$

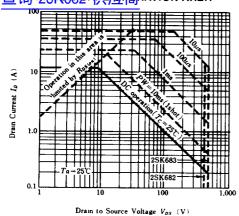
Item		Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown	2SK682	**	$I_D=10$ mA, $V_{CS}=0$	450	_	-	v
Voltage	2SK683	V.BR.DSS		500	_	_	
Gate-Source Breakdown Voltage		V (BR) GSS	$I_G = \pm 100 \mu A$, $V_{DS} = 0$	±20	-		V
Gate-Source Leak Current		Icss	$V_{GS}=\pm 16$ V, $V_{DS}=0$	-		±10	μA
Zero Gate Voltage Drain	2SK682		$V_{BS} = 360 \text{ V}, V_{GS} = 0$		-	250	μΑ
Current	2SK683	Inss	$V_{DS} = 400 \mathrm{V}, V_{GS} = 0$				
Gate-Source Cutoff Voltage		Vcs coff.	$I_D=1$ mA, $V_D s=10$ V	2.0	-	4.0	V
Static Drain-Source	2SK682	Rosioni	$I_D=6A$, $V_{GS}=10V^{\bullet}$		0.4	0.55	Ω
On State Resistance	2SK683			_	0.45	0.60	••
Forward Transfer Admittance		y/+	$I_D = 6A$, $V_{DS} = 10V$	6	10	_	S
Input Capacitance Output Capacitance Reverse Transfer Capacitance		C.,,	$V_{DS} = 10 \text{V}, V_{GS} = 0, f = 1 \text{MHz}$	_	2050	T -	pF
		C.s.s		_	720		pF
		C.,,		_	80	_	pF
Turn-on Delay Time Rise Time Turn-off Delay Time		td(on)	$I_D=6A, V_{GS}=10V, R_L=5\Omega$	_	25	_	ns
		t,		_	85	_	ns
		td(off)			145	_	ns
Fall Time		t _f		_	85	<u> </u>	ns
Body-Drain Diode Forward Voltage				1,,		v	
		VDF	$I_F=12A$, $V_{GS}=0$	-	1 0	_	"
Body- Drain Diode Reverse Recovery Time		t.,	$I_F = 12A$, $V_{GS} = 0$, $d_{IF}/dt = 100A/\mu_S$	_	120	_	ns

[·]Pulse Test

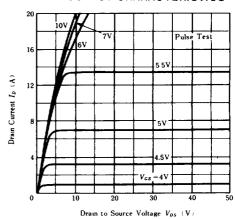
^{**}Value at Tc-25°C

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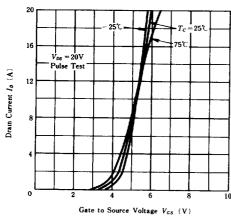
查询AZPM(MS SALE TOPE RATION AREA



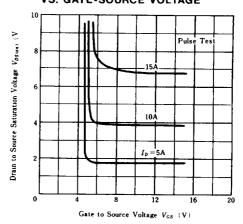
TYPICAL OUTPUT CHARACTERISTICS



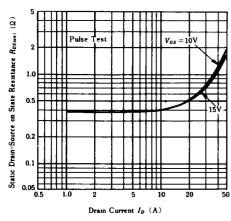
TYPICAL TRANSFER CHARACTERISTICS



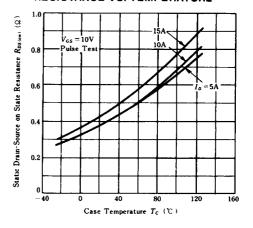
DRAIN-SOURCE SATURATION VOLTAGE VS. GATE-SOURCE VOLTAGE



STATIC DRAIN-SOURCE ON STATE RESISTANCE VS. DRAIN CURRENT



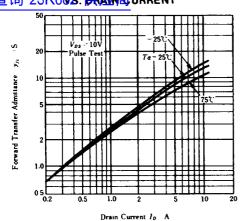
STATIC DRAIN-SOURCE ON STATE RESISTANCE VS. TEMPERATURE



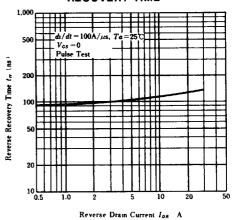
344

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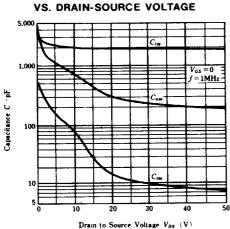
FORWARD TRANSFER ADMITTANCE 查询"2SK6%".供应应URRENT



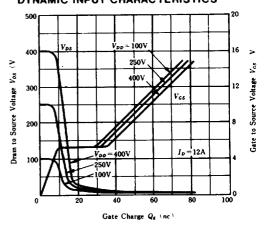
BODY DRAIN DIODE REVERSE RECOVERY TIME



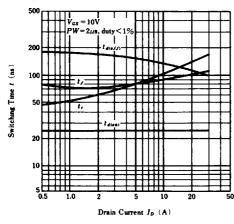
TYPICAL CAPACITANCE



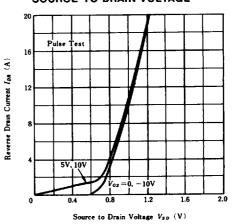
DYNAMIC INPUT CHARACTERISTICS



SWITCHING CHARACTERISTICS

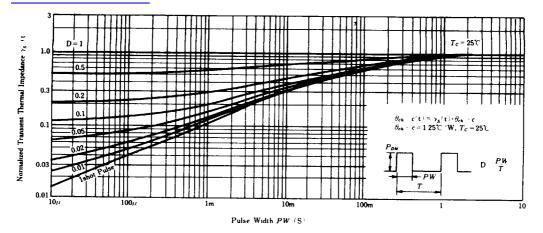


REVERSE DRAIN CURRENT VS. SOURCE TO DRAIN VOLTAGE

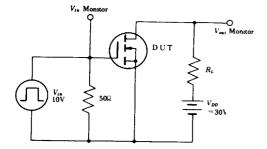


HITACHI/(OPTOELECTRONICS)

查询"25K682KKD TRANSIENT THERMAL IMPEDANCE VS. PULSE WIDTH



SWITCHING TIME TEST CIRCUIT



WAVEFORMS

