Ordering number : EN8612

SANYO Semiconductors
DATA SHEET

N-Channel Silicon MOSFET

2SK2534 — General-Purpose Switching Device Applications

Features

- Low ON-resistance.
- High-speed switching.
- Enables simplified fabrication, high-density mounding, and miniaturization in end products due to the surface mountable package.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		250	V
Gate-to-Source Voltage	V_{GSS}		±30	V
Drain Current (DC)	I_D		16	A
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	64	A
Allowable Power Dissipation	P_D	Tc=25˚C	50	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=1mA, V_{GS}=0V	250			V
Gate-to-Source Breakdown Voltage	$V_{(BR)GSS}$	I_G= ±100μA, V_{DS}=0V	±30			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=250V, V_{GS}=0V			1.0	mA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}= ±25V, V_{DS}=0V			±10	μA
Cutoff Voltage	$V_{GS}(off)$	V_{DS}=10V, I_D=1mA	2.0		3.0	V
Forward Transfer Admittance	$\|yfs\|$	V_{DS}=10V, I_D=8A	8.5	14		S

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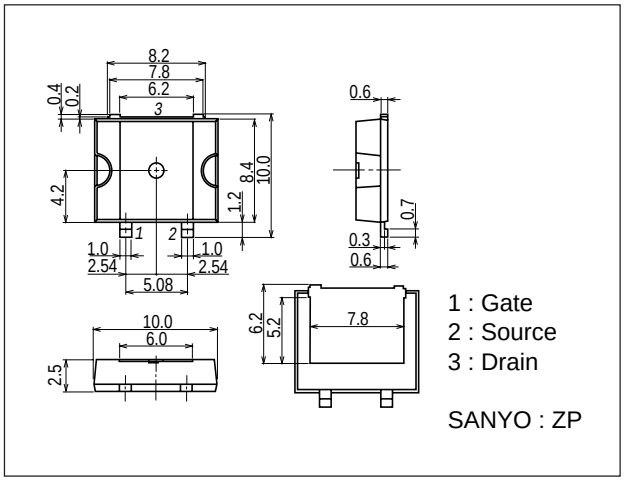
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Static Drain-to-Source On-State Resistance	$R_{DS}(on)$	I_D=8A, V_{GS}=10V		130	180	mΩ
Input Capacitance	Ciss	V_{DS}=20V, f=1MHz		1950		pF
Output Capacitance	Coss	V_{DS}=20V, f=1MHz		455		pF
Reverse Transfer Capacitance	Crss	V_{DS}=20V, f=1MHz		185		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		28		ns
Rise Time	t_r	See specified Test Circuit.		96		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit.		500		ns
Fall Time	t_f	See specified Test Circuit.		150		ns
Diode Forward Voltage	V_{SD}	I_S=16A, V_{GS}=0V		1.0	1.5	V
Diode Reverse Recovery Time	t_{rr}	I_S=16A, di / dt=100A / μs		180		ns

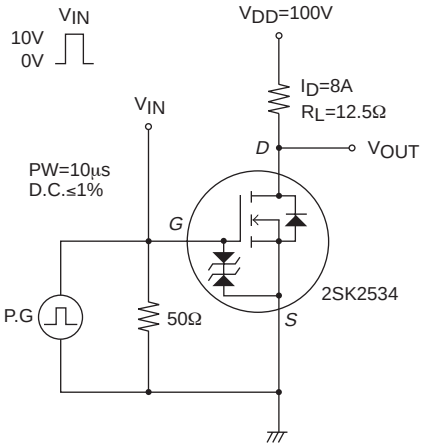
Package Dimensions

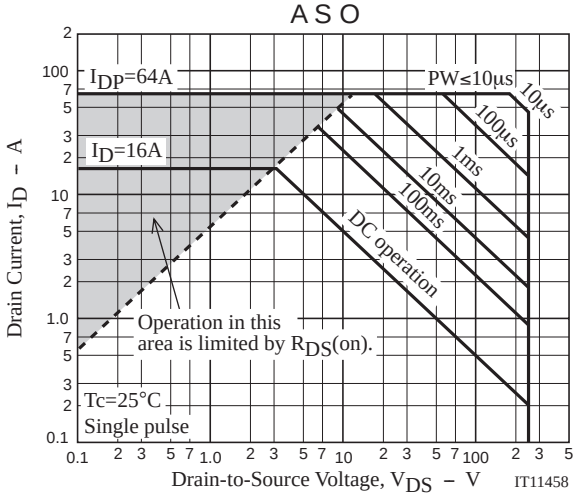
unit : mm (typ)

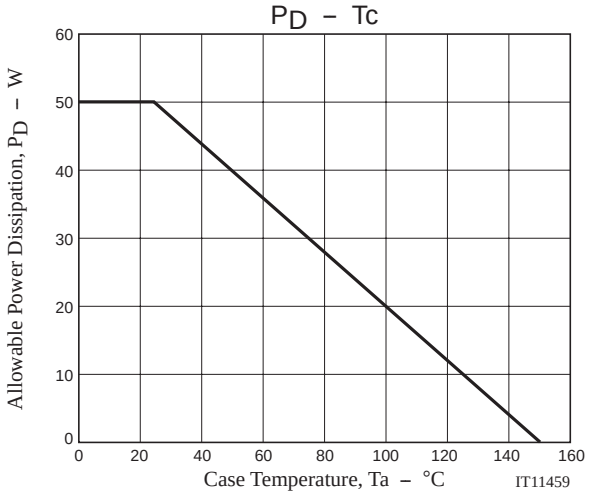
7002-001



Switching Time Test Circuit







Note on usage : Since the 2SK2534 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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