

SANYO	No.3459	2SK1456
		N-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

- Low ON-state resistance.
- Very high-speed switching.
- Converters.

Absolute Maximum Ratings at Ta = 25°C

Drain to Source Voltage	V _{DSS}	900	V
Gate to Source Voltage	V _{GSS}	±30	V
Drain Current(DC)	I _D	3	A
Drain Current(Pulse)	I _{DP}	6	A
Allowable Power Dissipation	P _D	60	W
		1.75	W
Channel Temperature	T _{ch}	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

PW ≤ 10 μs, duty cycle ≤ 1%
Tc = 25°C

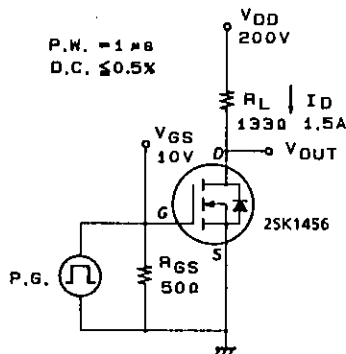
Electrical Characteristics at Ta = 25°C

		min	typ	max	unit
D-S Breakdown Voltage	V _{(BR)DSS}	900			V
Zero Gate Voltage Drain Current	I _{DSS}			1.0	mA
Gate to Source Leakage Current	I _{GSS}			±100	nA
Cutoff Voltage	V _{GS(off)}	2.0		3.0	V
Forward Transfer Admittance	Y _{fs}	0.8	1.5		S
Static Drain to Source on State Resistance	R _{DS(on)}		4.7	6.0	Ω
Input Capacitance	C _{iss}		350		pF
Output Capacitance	C _{oss}		150		pF
Reverse Transfer Capacitance	C _{rss}		100		pF
Turn-ON Delay Time	t _{d(on)}		15		ns
Rise Time	t _r		25		ns
Turn-OFF Delay Time	t _{d(off)}		120		ns
Fall Time	t _f		40		ns
Diode Forward Voltage	V _{SD}			1.8	V

I_D = 1mA, V_{GS} = 0
V_{DS} = 900V, V_{GS} = 0
V_{GS} = ±30V, V_{DS} = 0
V_{DS} = 10V, I_D = 1mA
V_{DS} = 20V, I_D = 1.5A
I_D = 1.5A, V_{GS} = 10V
V_{DS} = 20V, f = 1MHz
V_{DS} = 20V, f = 1MHz
V_{DS} = 20V, f = 1MHz
I_D = 1.5A, V_{GS} = 10V
V_{DD} = 200V, R_{GS} = 50Ω
I_S = 3A, V_{GS} = 0

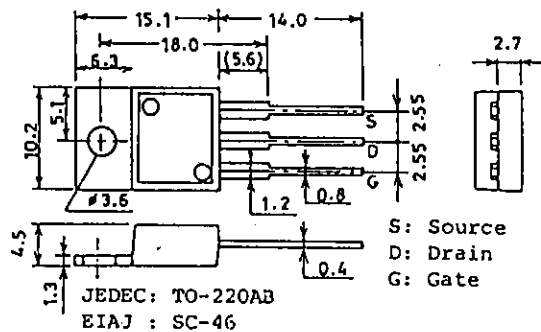
(Note) Be careful in handling the 2SK1456 because it has no protection diode between gate and source.

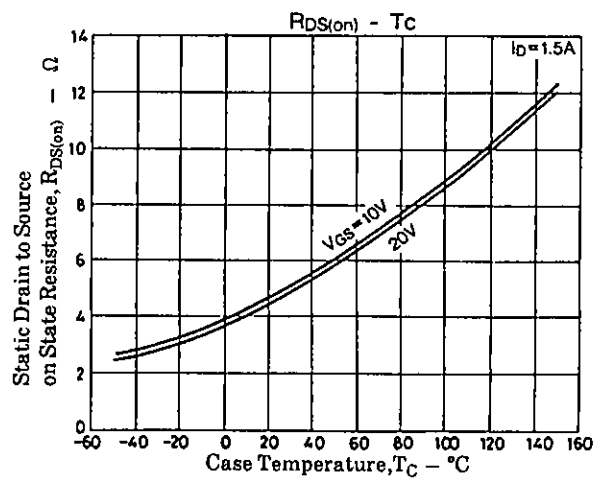
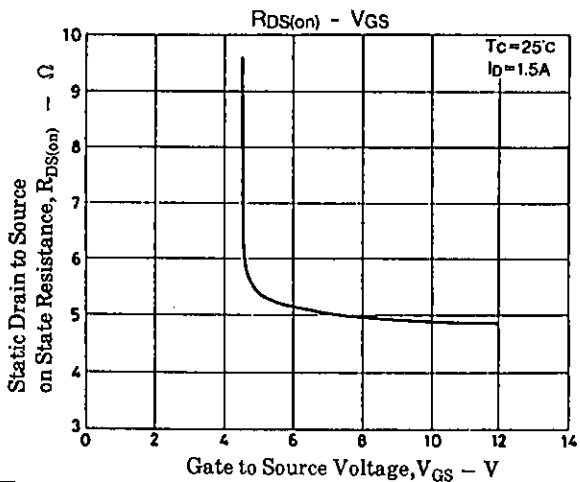
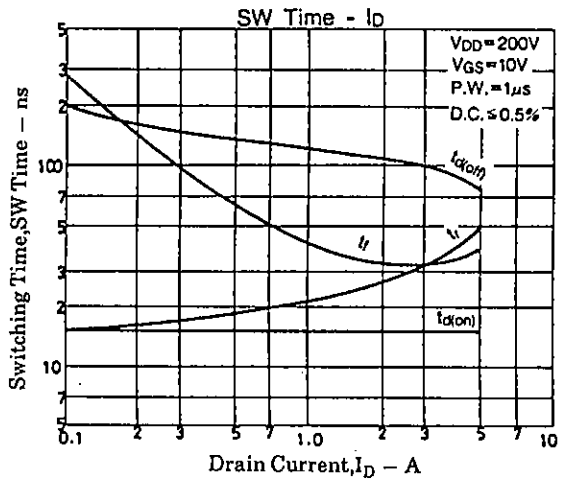
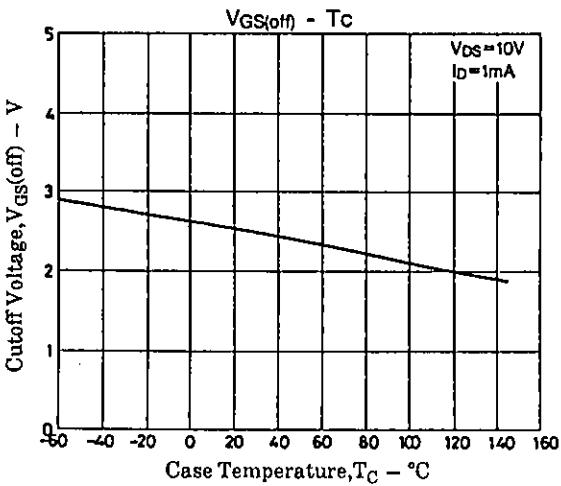
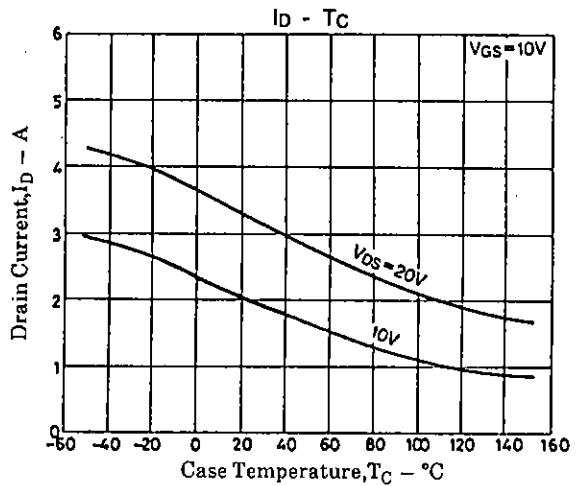
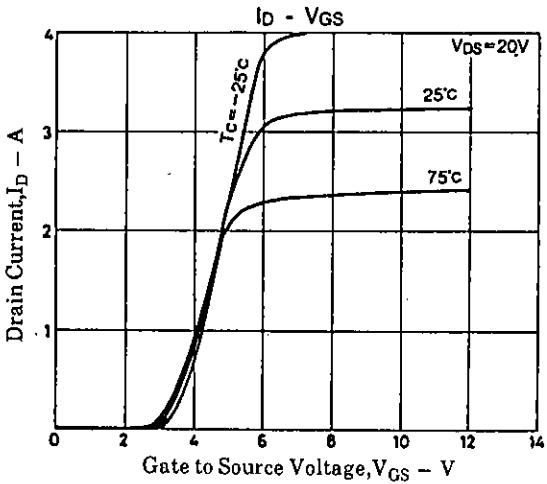
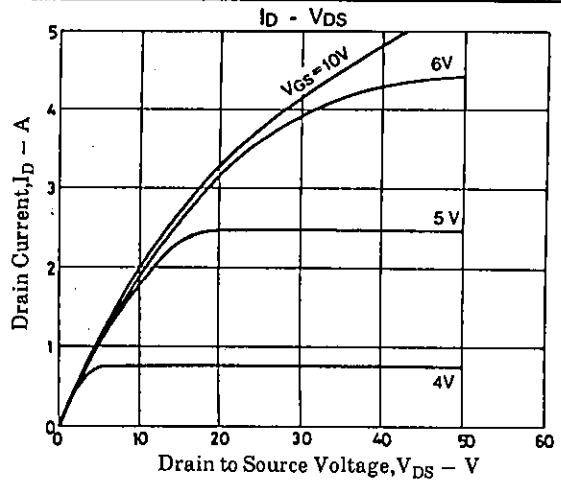
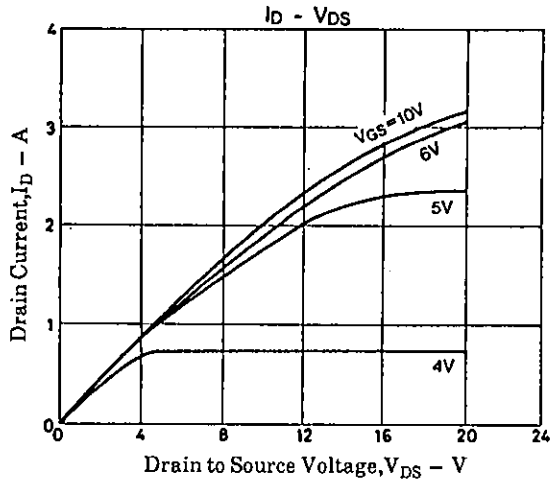
Switching Time Test Circuit

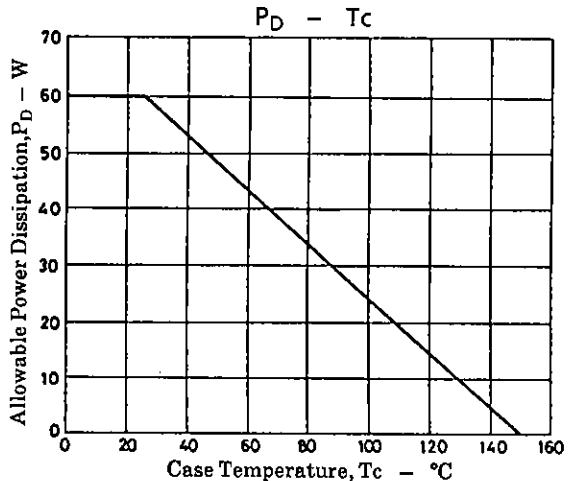
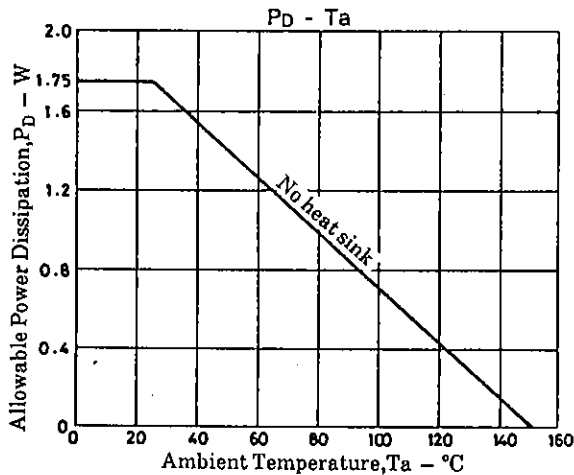
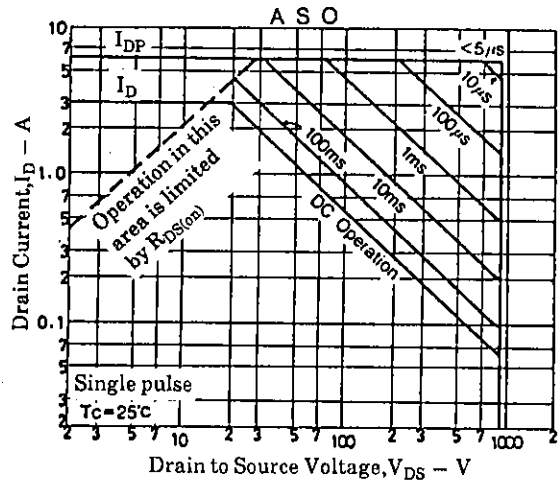
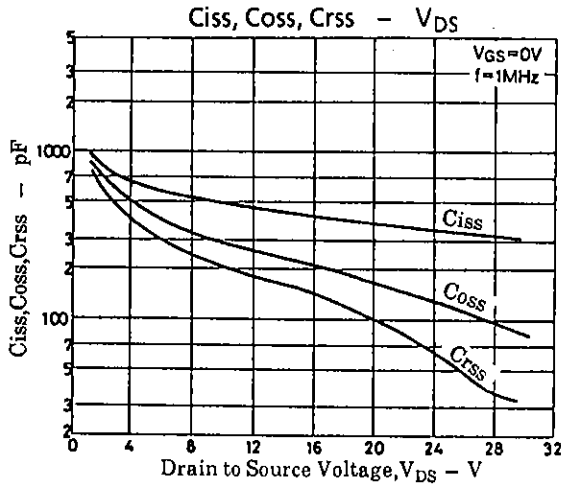
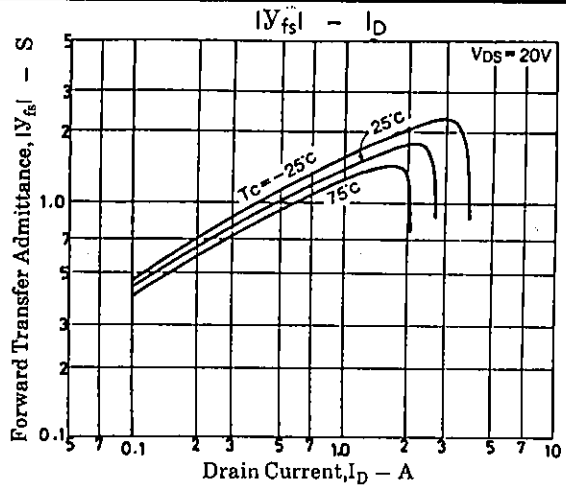
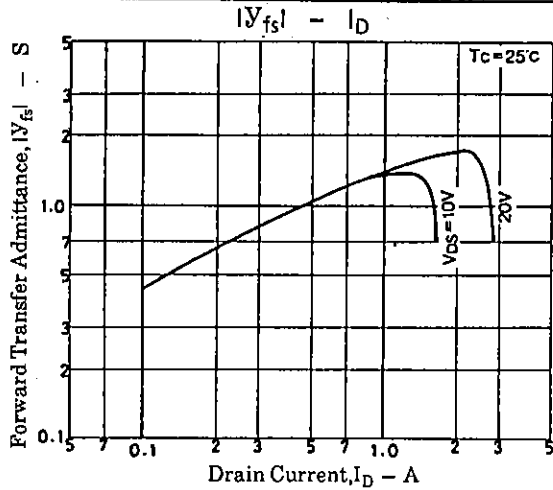


Package Dimensions 2052B

(unit: mm)







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