

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

			unit
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

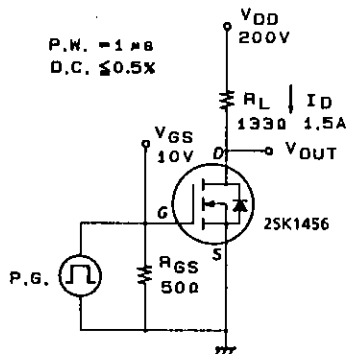
PW ≤ 10μs, duty cycle ≤ 1%
Tc = 25°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
D-S Breakdown Voltage	V _{(BR)DSS}	I _D = 1mA, V _{GS} = 0	900			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 900V, V _{GS} = 0			1.0	mA
Gate to Source Leakage Current	I _{GSS}	V _{GS} = ±30V, V _{DS} = 0			±100	nA
Cutoff Voltage	V _{GS(off)}	V _{DS} = 10V, I _D = 1mA	2.0		3.0	V
Forward Transfer Admittance	Y _{fs}	V _{DS} = 20V, I _D = 1.5A	0.8	1.5		S
Static Drain to Source on State Resistance	R _{DSON}	I _D = 1.5A, V _{GS} = 10V		4.7	6.0	Ω
Input Capacitance	C _{iss}	V _{DS} = 20V, f = 1MHz		350		pF
Output Capacitance	C _{oss}	V _{DS} = 20V, f = 1MHz		150		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} = 20V, f = 1MHz		100		pF
Turn-ON Delay Time	t _{d(on)}	I _D = 1.5A, V _{GS} = 10V V _{DD} = 200V, R _{GS} = 50Ω		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}	I _S = 3A, V _{GS} = 0			1.8	V

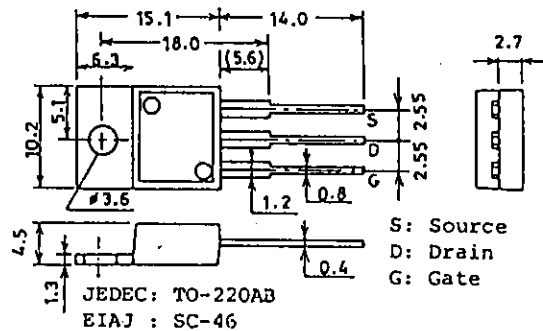
(Note) Be careful in handling the 2SK1456 because it has no protection diode between gate and source.

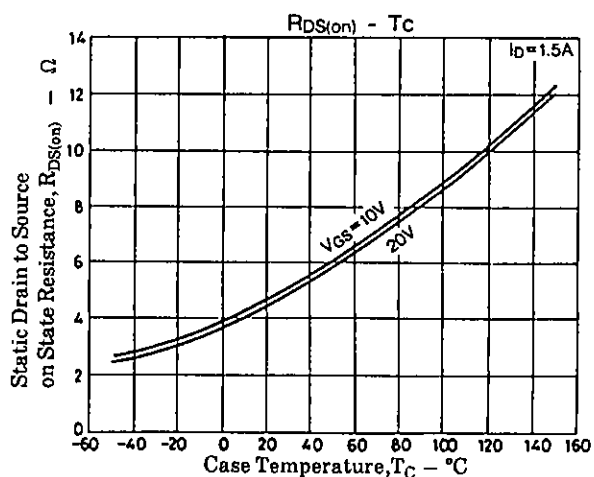
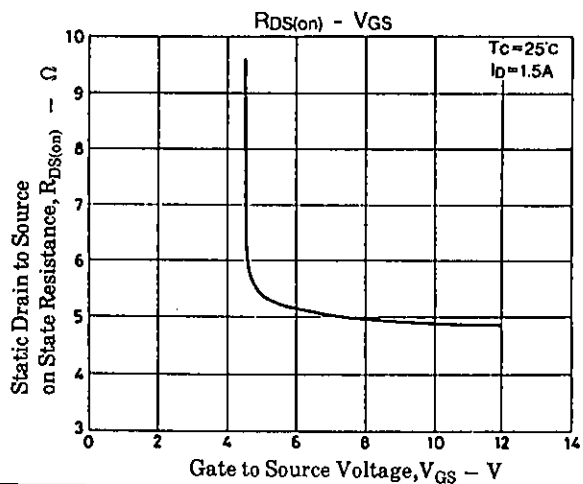
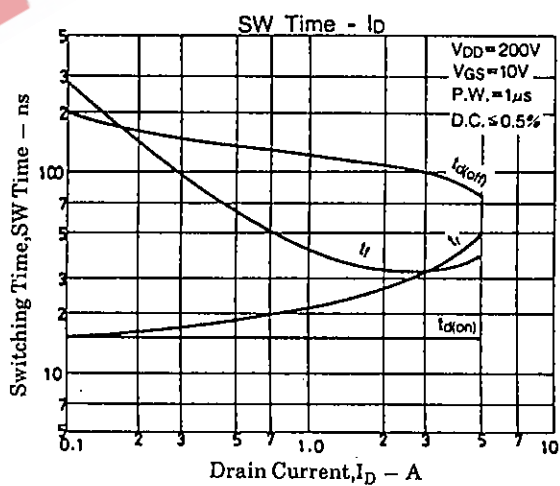
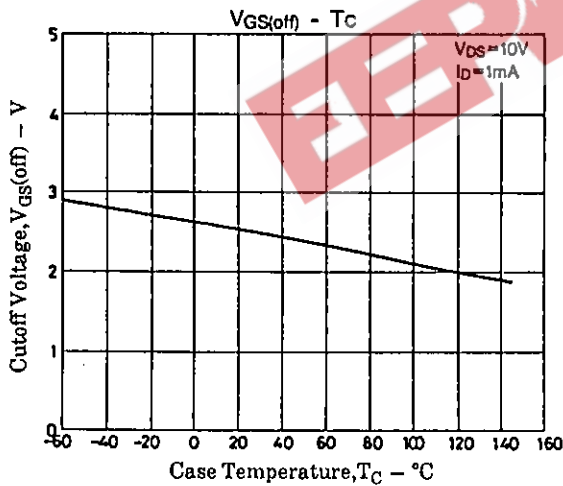
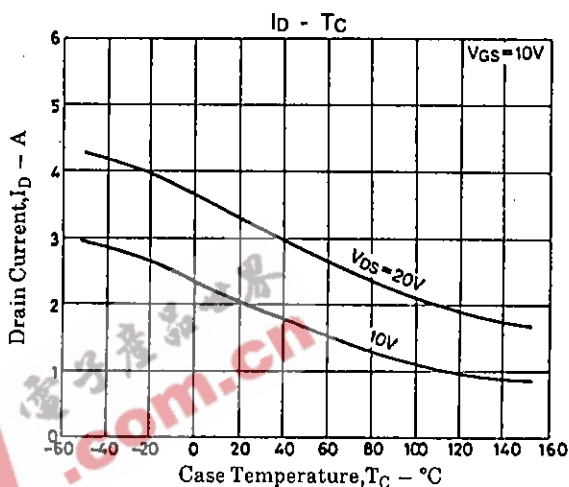
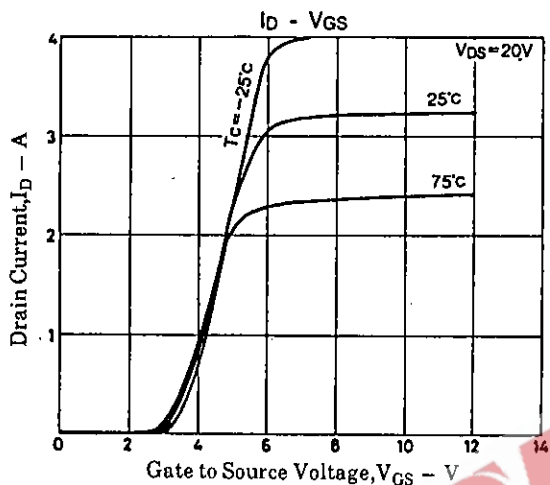
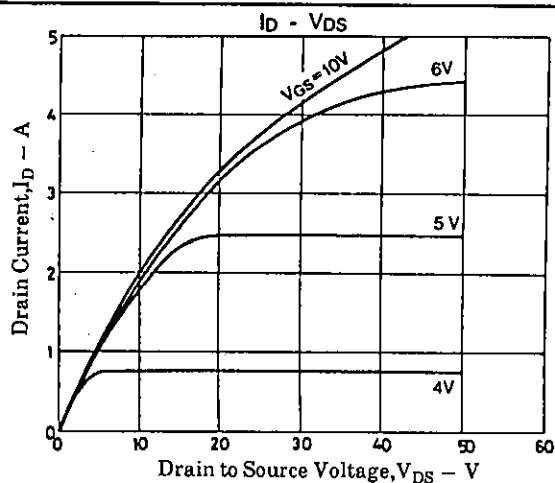
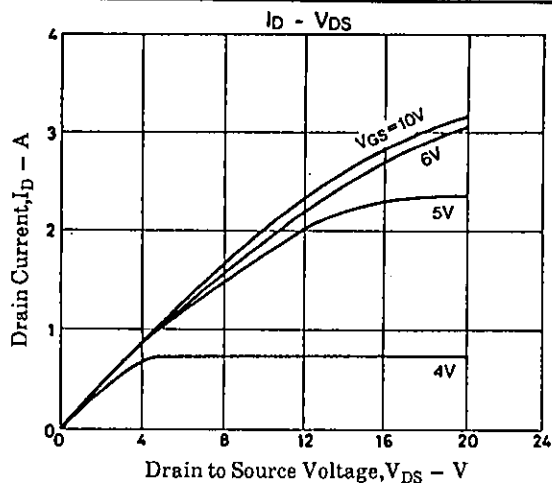
Switching Time Test Circuit

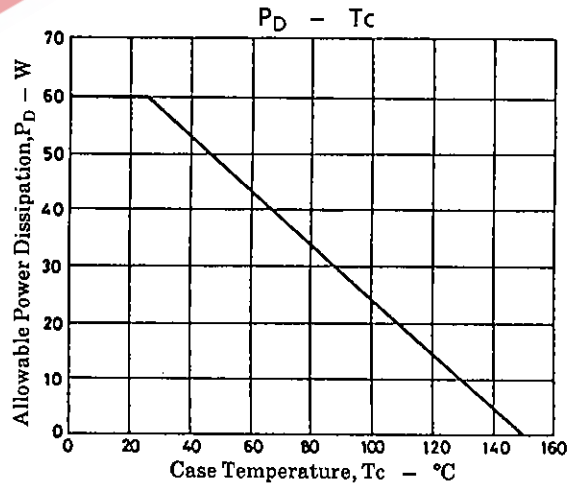
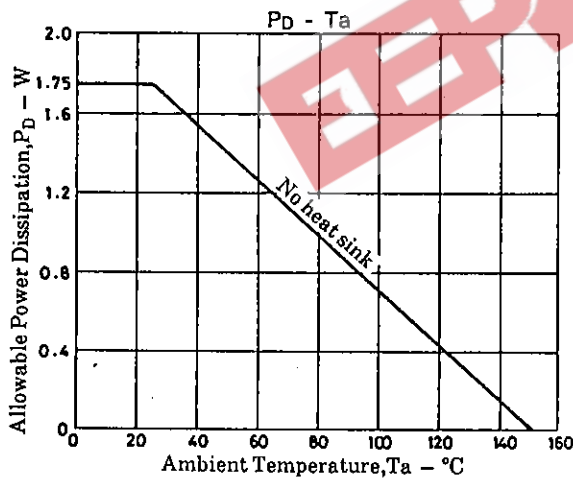
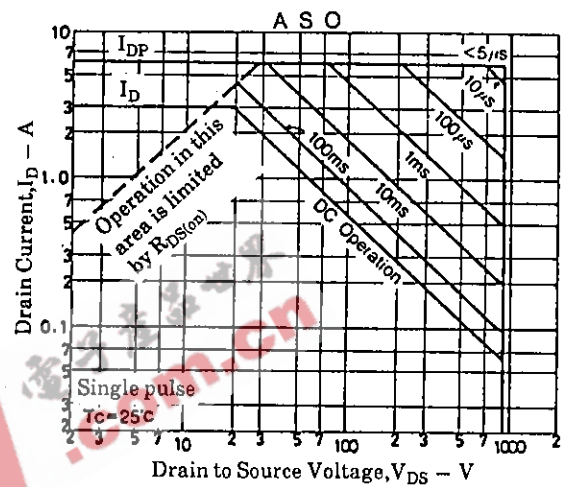
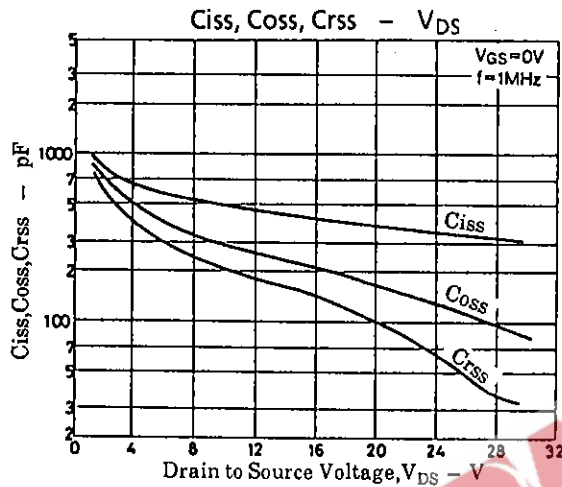
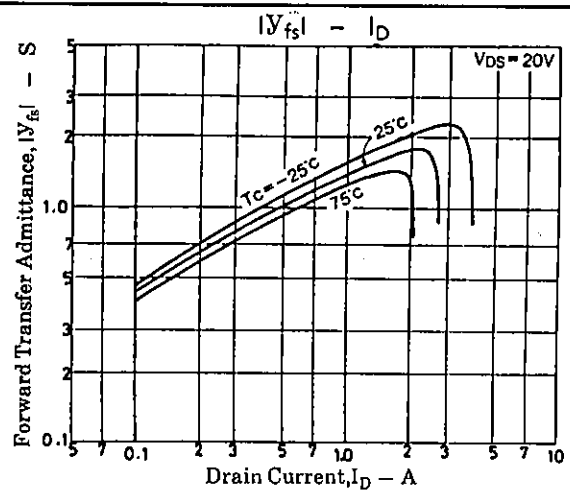
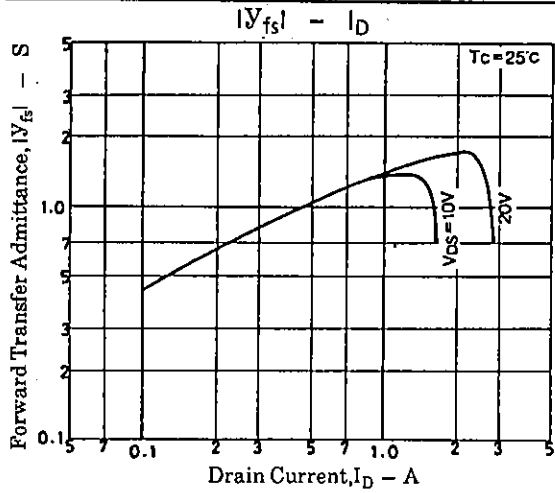


Package Dimensions 2052B

(unit : mm)







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