TOSHIBA Field Effect Transistor Silicon N Channel MOS Type (π-MOSV)

2SK3497

High Power Amplifier Application

Unit: mm

•	High breakdown volta	volume
---	----------------------	---

• Complementary to 2SJ618

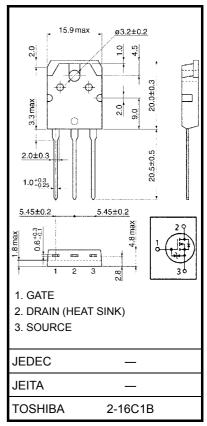
Maximum Ratings (Ta = 25°C)

Characteri	stics	Symbol	Rating	Unit	
Drain-source voltage		V_{DSS}	180	٧	
Gate-source voltage		V_{GSS}	±12	٧	
Drain current	DC (Note)	I _D	10	Α	
Diain current	Pulse (Note)	I_{DP}	30	Α	
Drain power dissipation	n (Tc = 25°C)	P_{D}	130	W	
Channel temperature		T _{ch}	150	°C	
Storage temperature ra	ange	T _{stg}	-55~150	°C	

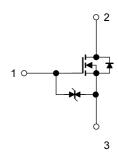
Note: Please use devices on condition that the channel temperature is below 150°C .

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Thermal resistance, channel to case	R _{th (ch-c)}	0.96	°C / W
Thermal resistance, channel to ambient	R _{th (ch-a)}	50	°C / W



Weight: 4.6 g (typ.)



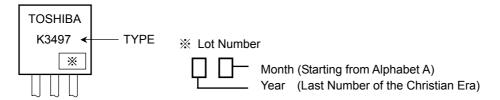


Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Gate leakage current	I _{GSS}	V _{GS} = ±12 V, V _{DS} = 0 V	_	_	10	μΑ
Drain cut-off current	I _{DSS}	V _{DS} = 180V, V _{GS} = 0 V	_	_	100	μA
Drain-source breakdown voltage	V (BR) DSS	I _D = 10 mA, V _{GS} = 0 V	180	_	-	V
Gate threshold voltage	V_{th}	V _{DS} = 10 V, I _D = 1 mA	1.1	_	2.1	V
Drain-source saturation voltage	V _{DS} (ON)	V _{GS} = 7 V, I _D = 5 A	_	_	0.75	V
Forward transfer admittance	Y _{fs}	V _{DS} = 10 V, I _D = 5 A	6.0	12.0	_	S
Input capacitance	C _{iss}		_	2400	_	
Reverse transfer capacitance	C _{rss}	V _{DS} = 30 V, V _{GS} = 0 V, f = 1 MHz	_	220	_	pF
Output capacitance	Coss		_	30	_	

This transistor is an electrostatic sensitive device. Please handle with caution.

Marking



2 2003-07-16

RESTRICTIONS ON PRODUCT USE

000707EAA

- TOSHIBA is continually working to improve the quality and reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such TOSHIBA products could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent TOSHIBA products specifications. Also, please keep in mind the precautions and conditions set forth in the "Handling Guide for Semiconductor Devices," or "TOSHIBA Semiconductor Reliability Handbook" etc..
- The TOSHIBA products listed in this document are intended for usage in general electronics applications (computer, personal equipment, office equipment, measuring equipment, industrial robotics, domestic appliances, etc.). These TOSHIBA products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury ("Unintended Usage"). Unintended Usage include atomic energy control instruments, airplane or spaceship instruments, transportation instruments, traffic signal instruments, combustion control instruments, medical instruments, all types of safety devices, etc.. Unintended Usage of TOSHIBA products listed in this document shall be made at the customer's own risk.
- The information contained herein is presented only as a guide for the applications of our products. No
 responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other
 rights of the third parties which may result from its use. No license is granted by implication or otherwise under
 any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.