

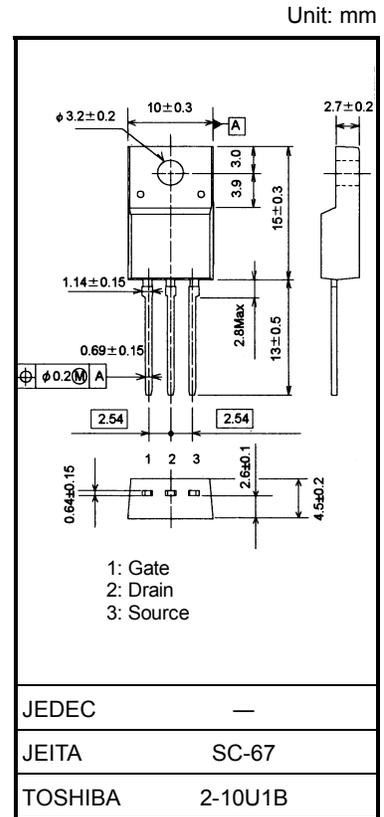
2SK3798

Switching Regulator Applications

- Low drain-source ON resistance: $R_{DS(ON)} = 2.5 \Omega$ (typ.)
- High forward transfer admittance: $|Y_{fs}| = 2.8 \text{ S}$ (typ.)
- Low leakage current: $I_{DSS} = 100 \mu\text{A}$ ($V_{DS} = 720 \text{ V}$)
- Enhancement-mode: $V_{th} = 2.0 \sim 4.0 \text{ V}$ ($V_{DS} = 10 \text{ V}$, $I_D = 1 \text{ mA}$)

Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
Drain-source voltage	V_{DSS}	900	V
Drain-gate voltage ($R_{GS} = 20 \text{ k}\Omega$)	V_{DGR}	900	V
Gate-source voltage	V_{GSS}	± 30	V
Drain current	DC (Note 1)	I_D	4
	Pulse ($t = 1 \text{ ms}$) (Note 1)	I_{DP}	12
Drain power dissipation ($T_c = 25^\circ\text{C}$)	P_D	40	W
Single pulse avalanche energy (Note 2)	E_{AS}	345	mJ
Avalanche current	I_{AR}	4	A
Repetitive avalanche energy (Note 3)	E_{AR}	4.0	mJ
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~150	$^\circ\text{C}$



Weight : 1.7 g (typ.)

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Thermal resistance, channel to case	$R_{th(ch-c)}$	3.125	$^\circ\text{C/W}$
Thermal resistance, channel to ambient	$R_{th(ch-a)}$	62.5	$^\circ\text{C/W}$

Note 1: Please use devices on conditions that the channel temperature is below 150°C .

Note 2: $V_{DD} = 90 \text{ V}$, $T_{ch} = 25^\circ\text{C}$, $L = 39.6 \text{ mH}$, $I_{AR} = 4.0 \text{ A}$, $R_G = 25 \Omega$

Note 3: Repetitive rating: Pulse width limited by maximum channel temperature

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

