

MOS FET 2SK3724 (under development)

Features

- ON resistance 0.005Ω max.
- Built-in G-S bidirectional Zener diode
- Trench MOS structure

Applications

- Power steering motor
- Various motors
- Replaces mechanical relays

Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{DS}	60	V
V _{GS}	20	V
I _D	80	A
I _D (pulse)	160	A
P _D	60	W
EAS	To be defined	mJ
T _{ch} *	150	°C
Tstg	-55 to +150	°C

* Contact your sales rep for the details of warranty at T_{ch}=175°C

Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings			Unit
		min	typ	max	
V _{(BR) DSS}	I _D = 100μA	60			V
I _{GSS}	V _{GS} = ±20V		±10		μA
I _{DSS}	V _{DS} = 60V, V _{GS} = 0V			100	μA
V _{TH}	V _{DS} = 10V, I _D = 1mA	1		2	V
R _{DS (ON)}	V _{GS} = 10V, I _D = 40A		4.0	5.0	mΩ
V _{SD}	I _{SD} = 50A		0.9	1.5	V
t _{rr}	I _{SD} = 25A, di/dt = 50A/μs		To be defined		ns
C _{iss}	V _{DS} = 10V		10600		pF
C _{oss}	V _{GS} = 10V		1600		pF
Crss	f = 1.0MHz		1300		pF

External Dimensions TO220S

