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ZVN0106A

ABSOLUTE MAXIMUM RATINGS

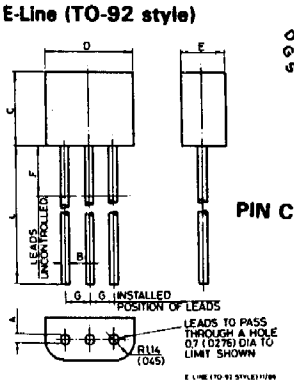
	Parameters	E-line	Units
V_{DS}	Drain-source voltage	100	V
I_D	Continuous drain current (@ $T_A = 25°C$)	0.32	A
I_D	Continuous drain current (@ $T_C = 25°C$)	–	A
I_{DM}	Pulse drain current	6	A
V_{GS}	Gate-source voltage	±20	V
P_D	Max. power dissipation (@ $T_A = 25°C$)	0.7	W
P_D	Max. power dissipation (@ $T_C = 25°C$)	–	W
T_j, T_{stg}	Operating/storage temperature range	−55 to +150	°C

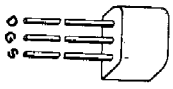
ELECTRICAL CHARACTERISTICS (at T = 25°C unless otherwise stated)

	Parameter	Min.	Typ.	Max.	Unit	Conditions
BV_{DSS}	Drain-source breakdown voltage	100	–	–	V	$I_D = 1mA$, $V_{GS} = 0V$
$V_{GS(th)}$	Gate-source threshold voltage	0.8	–	2.4	V	$I_D = 1mA$, $V_{DS} = V_{GS}$
I_{GSS}	Gate body leakage	–	0.1	20	nA	$V_{GS} = \pm 20V$, $V_{DS} = 0V$
I_{DSS}	Zero gate voltage drain current	–	–	1	μA	V_{DS} = Max. rating, $V_{GS} = 0V$
		–	–	100	μA	$V_{DS} = 0.8 \times$ Max. rating, $V_{GS} = 0V$ (T = 125°C) (2)
$I_{D(on)}$	On-state drain current (1)	1.5	2	–	A	$V_{DS} = 25V$, $V_{GS} = 10V$
$R_{DS(on)}$	Static drain-source on-state resistance (1)	–	–	4	Ω	$I_D = 1A$, $V_{GS} = 10V$
g_{fs}	Forward transconductance (1) (2)	250	350	–	mS	$V_{DS} = 25V$, $I_D = 1A$
C_{iss}	Input capacitance (2)	–	59	75	pF	$V_{DS} = 25V$, $V_{GS} = 0V$, f = 1MHz
C_{oss}	Common source output capacitance (2)	–	16	25	pF	
C_{rss}	Reverse transfer capacitance (2)	–	4	8	pF	
$t_{d(on)}$	Turn-on delay time (2) (3)	–	4	7	ns	$V_{DD} \approx 25V$, $I_D = 1A$
t_r	Rise time (2) (3)	–	4	8	ns	
$t_{d(off)}$	Turn-off delay time (2) (3)	–	8	13	ns	
t_f	Fall time (2) (3)	–	8	13	ns	

PACKAGE DETAILS

E-Line (TO-92 style)





PIN CONFIGURATION

DIMENSION	MILLIMETRES		INCHES	
	MIN	MAX	MIN	MAX
A	0.41	0.495	0.016	0.0195
B	0.41	0.495	0.016	0.0195
C	3.61	4.01	0.142	0.158
D	4.37	4.77	0.172	0.188
E	2.16	2.41	0.085	0.095
F		2.5		0.098
G	1.27 NOM		0.050 NOM	
L	12.06	13.97	0.475	0.550