

8514019 SPRAGUE. SEMICONDUCTORS/ICS

93D 03612 D

T-29-25

SMALL-OUTLINE JUNCTION FIELD-EFFECT TRANSISTORS

P-Channel JFETs

ELECTRICAL CHARACTERISTICS at $T_A = 25^\circ\text{C}$

Device Type	V _{DS(on)}		I _{DSS}		V _{GS(on)}				I _{DSS}			g _{fs}			C _{iss} ¹		C _{rss} ¹		r _{DS} Max. (Ω)	Process
					Limits		Conditions													
	Min. (V)	Max. (V)	Min. (mA)	Max. (mA)	V _{GS} (V)	I _D (mA)	Min. (mA)	Max. (mA)	α V _{DS} (V)	Min. (mS)	Max. (mS)	Max. (pF)	α V _{DS} (V)	Max. (pF)	α V _{DS} (V)					
TMPF2608	30	1.0	10	5.0	1.0	4.0	-5.0	-1.0 ²	-0.9	-4.5	-5.0	1.0	—	-5.0	17	-5.4	—	—	—	PJ32
TMPF2609	30	1.0	10	5.0	1.0	4.0	-5.0	-1.0 ²	-2.0	-10	-5.0	2.5	—	-5.0	30	-5.4	—	—	—	PJ32
TMPF3329	20	10	10	10	—	6.0	-15	-10 ²	-1.0	-3.0	-10	—	—	—	20	-10	—	—	—	PJ32
TMPF3330	20	10	10	10	—	6.0	-15	-10 ²	-2.0	-6.0	-10	—	—	—	20	-10	—	—	—	PJ32
TMPF3331	20	10	10	10	—	8.0	-15	-10 ²	-5.0	-15	-10	—	—	—	20	-10	—	—	—	PJ32
TMPF3332	20	10	10	10	—	6.0	-15	-10 ²	-1.0	-6.0	-10	—	—	—	20	-10	—	—	—	PJ32
TMPF3820	20	10	20	10	—	8.0	-10	-10 ²	-0.3	-15	-10	0.8	5.0	-10	32	-10	16	-10	—	PJ32
TMPF3993	25	1.0	1.0	15	4.0	9.5	-10	-1.0 ²	-10	—	-10	6.0	12	-10	16	-10	4.5	10 ³	150	PJ99
TMPF3994	25	1.0	1.0	15	1.0	5.5	-10	-1.0 ²	-2.0	—	-10	4.0	10	-10	16	-10	4.5	10 ³	300	PJ99
TMPF4381	25	1.0	1.0	15	1.0	5.0	-15	-1.0 ²	-3.0	-12	-15	2.0	6.0	-15	20	-15	5.0	-15	—	PJ32
TMPF5018	30	1.0	2.0	15	—	10	-15	-1.0 ²	-10	—	-20	—	—	—	45	-15	10	12 ³	75	PJ99
TMPF5019	30	1.0	2.0	15	—	5.0	-15	-1.0 ²	-5.0	—	-20	—	—	—	45	-15	10	7.0 ³	150	PJ99
TMPF5020	25	1.0	1.0	15	0.3	1.5	-15	-1.0 ²	-0.3	-1.2	-15	1.0	3.5	-15	25	-15	7.0	-15	—	PJ32
TMPF5021	25	1.0	1.0	15	0.5	2.5	-15	-1.0 ²	-1.0	-3.5	-15	1.5	6.0	-15	25	-15	7.0	-15	—	PJ32
TMPF5033	20	10	10	15	0.3	2.5	-15	-1.0 ²	-0.3	3.5	-15	1.0	5.0	-10	25	-15	7.0	-15	—	PJ32
TMPF5114	30	1.0	1.0	20	5.0	10	-15	-1.0	-30	-90	-15	—	—	—	25	-15	7.0	12 ³	75	PJ99
TMPF5115	30	1.0	1.0	20	3.0	6.0	-15	-1.0	-16	-60	-15	—	—	—	25	-15	7.0	7.0 ³	100	PJ99
TMPF5116	30	1.0	1.0	20	1.0	4.0	-15	-1.0	-5.0	-25	-15	—	—	—	25	-15	7.0	5.0 ³	150	PJ99
TMPF5460	40	10	5.0	20	0.75	6.0	-15	-1.0	-1.0	-5.0	-15	1.0	5.0	-15	7.0	-15	3.0	-15	—	PJ32
TMPF5461	40	10	5.0	20	1.0	7.5	-15	-1.0	-2.0	-9.0	-15	1.5	5.5	-15	7.0	-15	3.0	-15	—	PJ32
TMPF5462	40	10	5.0	20	1.8	9.0	-15	-1.0	-4.0	-16	-15	2.0	6.0	-15	7.0	-15	3.0	-15	—	PJ32
TMPFJ174	30	1.0	1.0	20	5.0	10	-15	-10	-20	-135	-15	—	—	—	—	—	—	—	85	PJ99
TMPFJ175	30	1.0	1.0	20	3.0	6.0	-15	-10	-7.0	-70	-15	—	—	—	—	—	—	—	125	PJ99
TMPFJ176	30	1.0	1.0	20	1.0	4.0	-15	-10	-2.0	-35	-15	—	—	—	—	—	—	—	250	PJ99
TMPFJ177	30	1.0	1.0	20	0.8	2.25	-15	-10	-1.5	-20	-15	—	—	—	—	—	—	—	300	PJ99
TMPFJ270	30	1.0	1.0	20	0.5	2.0	-15	-1.0	-2.0	-15	-15	6.0	15	-15	—	—	—	—	—	PJ99
TMPFJ271	30	1.0	1.0	20	1.5	4.5	-15	-1.0	-6.0	-50	-15	8.0	18	-15	—	—	—	—	—	PJ99
TMPFP1086	30	1.0	2.0	15	—	10	-15	-1.0 ²	-10	—	-20	—	—	—	45	-15	10	12 ³	75	PJ99
TMPFP1087	30	1.0	2.0	15	—	5.0	-15	-1.0 ²	-5.0	—	-20	—	—	—	45	-15	10	7.0 ³	150	PJ99
TMPFU304	30	1.0	1.0	20	5.0	10	-15	-1.0 ²	-30	-90	-15	—	—	—	27	-15	7.0	12 ³	85	PJ99
TMPFU305	30	1.0	1.0	20	3.0	6.0	-15	-1.0 ²	-15	-60	-15	—	—	—	27	-15	7.0	7.0 ³	110	PJ99
TMPFU306	30	1.0	1.0	20	1.0	4.0	-15	-1.0 ²	-5.0	-25	-15	—	—	—	27	-15	7.0	5.0 ³	175	PJ99

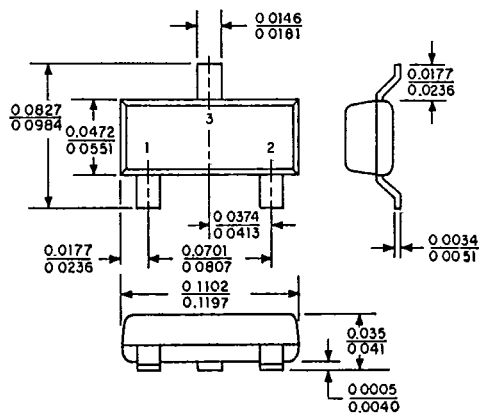
NOTES:

- 1) $V_{GS} = 0$ V.
- 2) I_D in μA .
- 3) $V_{DS} = 0$ V, V_{GS} in volts.
- 4) $V_{GS} = 1.0$ V.

TO-236AB/STYLE CK

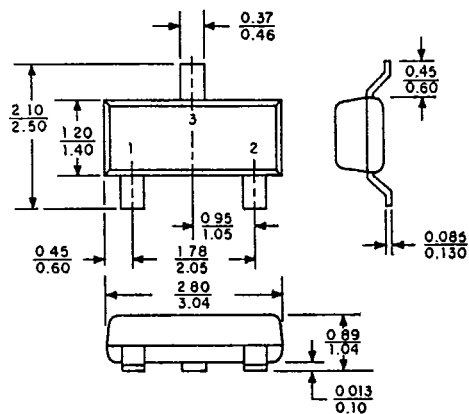
DIMENSIONS IN INCHES

Based on 25.4 mm = 1"

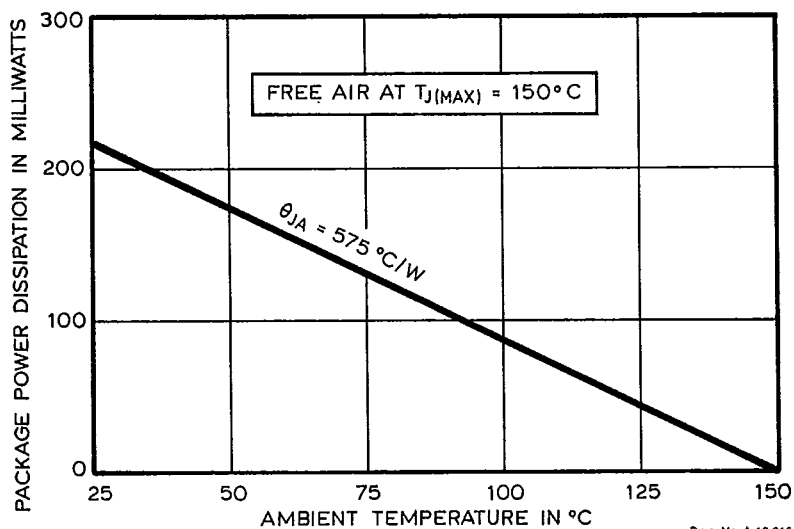


Dwg No. A-12,238B IN

DIMENSIONS IN MILLIMETERS

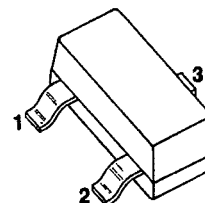


Dwg No A-12,238B MM

MAXIMUM ALLOWABLE PACKAGE POWER DISSIPATION
AS A FUNCTION OF AMBIENT TEMPERATURE

Dwg No A-13 616

Die size = 0.635 mm by 0.635 mm (0.025" by 0.025"). Other factors that determine allowable package power dissipation in application include circuit board material, pad size, and proximity of other heat producing circuit elements.



CK PINOUT

Pin	Terminal
1	Drain
2	Source
3	Gate