

No.2543

N-Channel Junction Silicon FET

AM Tuner, RF Amp Applications

Applications

- . AM tuner RF amp, low-noise amp
- . HF low-noise amp

Features

- . Adoption of FBET process

- . Large |Y_{fs}|
 . Small c_{iss}
 . Very low noise figure

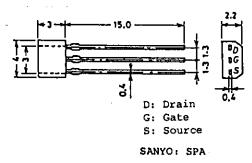
Absolute Maximum Ratings at Ta	=25 ⁰ C			unit
Drain to Source Voltage	$v_{ exttt{DSS}}$		15	V.
Gate to Drain Voltage	VGDS		- 15	V
Gate Current	IG		10	mA
Drain Current	— —	•	50	mA
Allowable Power Dissipation	$P_{\mathbf{D}}$		300	mW
Junction Temperature	ΤĴ		125	ос
Storage Temperature	Tstg	•	-55 to +125	oc

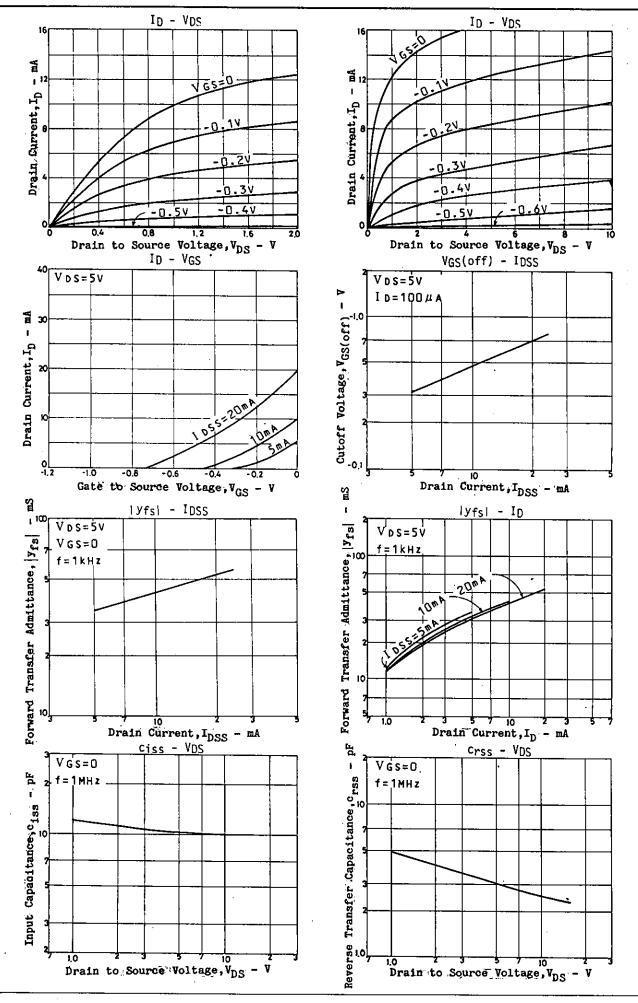
Electrical Characteristics at	Ta=25 ^O C		min	typ	max	unit
Gate to Drain	V(BR)GDS	$I_{G} = -10\mu A, V_{DS} = 0$	-15	*-		V
Breakdown Voltage	(21,) 02,0	a				
Gate Cutoff Current	I _{GSS}	$V_{GS} = -10V, V_{DS} = 0$			-1.0	nA
Cutoff Voltage	VGS(OFF)	$V_{DS} = 5V, I_{D} = 100 \mu A$		-0.6	-1.4	v
Drain Current	IDSS	$V_{DS} = 5V, V_{GS} = 0$	5.0*		24.0*	mA
Forward Transfer Admittance	Yfs	$V_{DS}=5V, V_{GS}=0, f=1kHz$	25	50		mS
Input Capacitance	Cias	$V_{DS} = 5V$, $V_{GS} = 0$, $f = 1kHz$		10		рF
Reverse Transfer Capacitance	crss NF	$V_{DS} = 5V$, $V_{GS} = 0$, $f = 1kHz$		3.0		pF
Noise Figure	NF	$V_{DS} = 5V$, $Rg = 1k\Omega$,		1.5		dB
		$I_D = 1 \text{ mA} \cdot f = 1 \text{ kHz}$				

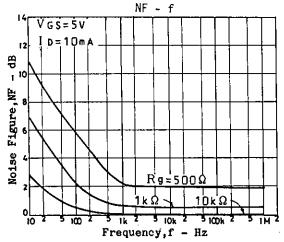
*: The 2SK715 is classified by $I_{\rm DSS}$ as follows: (unit:mA)

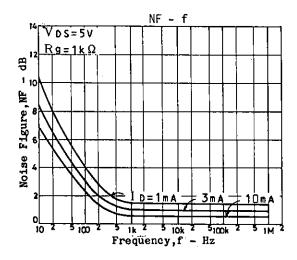
5.0	T	8.5	7.3	Ū	12.0	10.0	V	17.0	14.5	W	24.0

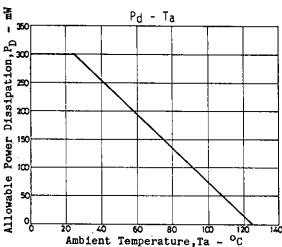
Package Dimensions 2034 (unit: mm)











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