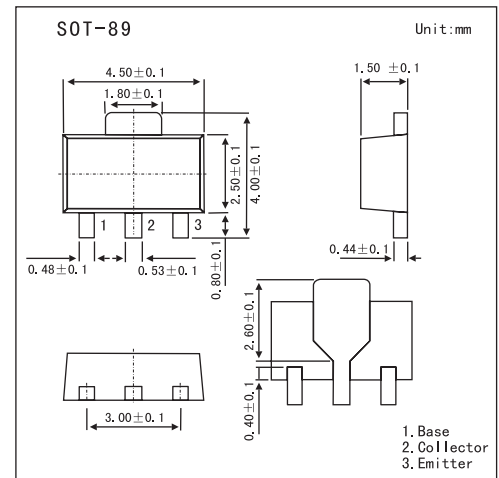


DTC3059

P-Channel Enhancement Mode Field Effect Transistor

PRODUCT SUMMARY

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
-30V	45mΩ	-5.7A



ABSOLUTE MAXIMUM RATINGS ($T_A = 25\text{ °C}$ Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Gate-Source Voltage		V_{GS}	±20	V
Continuous Drain Current	$T_A = 25\text{ °C}$	I_D	-5.7	A
	$T_A = 70\text{ °C}$		-4.5	
Pulsed Drain Current ¹		I_{DM}	-20	
Avalanche Current		I_{AS}	-12	
Avalanche Energy	L = 0.1mH	E_{AS}	7	mJ
Power Dissipation ³	$T_A = 25\text{ °C}$	P_D	2.5	W
	$T_A = 70\text{ °C}$		1.6	
Operating Junction & Storage Temperature Range		T_J, T_{stg}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS ($T_J = 25\text{ °C}$, Unless Otherwise Noted)

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-30			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1.3	-1.6	-2.3	
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -24V, V_{GS} = 0V$			-1	μA
		$V_{DS} = -20V, V_{GS} = 0V, T_J = 55\text{ °C}$			-10	
Drain-Source On-State Resistance ¹	$R_{DS(ON)}$	$V_{GS} = -4.5V, I_D = -4A$		80	85	mΩ
		$V_{GS} = -10V, I_D = -4A$		45	48	
Forward Transconductance ¹	g_{fs}	$V_{DS} = -5V, I_D = -4A$		10		S

■ Marking

Marking	DTC59
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