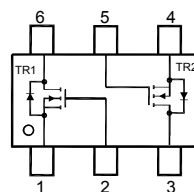
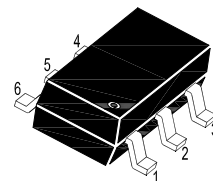


N-Channel Enhancement Mode Field Effect Transistor



1.Source 2. Gate 3. Drain
4. Source 5. Gate 6. Drain



■ Simplified outline(SOT-363)

■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Drain Source Voltage	V_{DSS}	60	V
Drain Gate Voltage ($R_{GS} \leq 1 \text{ M}\Omega$)	V_{DGR}	60	V
Gate Source Voltage	V_{GSS}	± 20	V
		± 40	
Drain Current	I_D	115	mA
		800	
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$

■ Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Drain Source Breakdown Voltage at $I_D = 10 \mu\text{A}$	BV_{DSS}	60	-	V
Zero Gate Voltage Drain Current at $V_{DS} = 60 \text{ V}$	I_{DSS}	-	1	μA
Gate Source Leakage Current at $\pm V_{GS} = 20 \text{ V}$	$\pm I_{GSS}$	-	100	nA
Gate Source Threshold Voltage at $V_{DS} = V_{GS} = 10 \text{ V}$, $I_D = 250 \mu\text{A}$	$V_{GS(th)}$	1	2.5	V
Static Drain Source On Resistance at $V_{GS} = 5 \text{ V}$, $I_D = 50 \text{ mA}$ at $V_{GS} = 10 \text{ V}$, $I_D = 500 \text{ mA}$	$R_{DS(ON)}$	-	7.5	Ω
		-	7.5	
Drain Source On Voltage at $V_{GS} = 5 \text{ V}$, $I_D = 50 \text{ mA}$ at $V_{GS} = 10 \text{ V}$, $I_D = 500 \text{ mA}$	$V_{DS(ON)}$	-	1.5	V
		-	3.75	
Forward Transconductance at $V_{DS} = 10 \text{ V}$, $I_D = 200 \text{ mA}$	g_{FS}	80	-	mS
Input Capacitance at $V_{DS} = 25 \text{ V}$, $f = 1 \text{ MHz}$	C_{iss}	-	50	pF
Output Capacitance at $V_{DS} = 25 \text{ V}$, $f = 1 \text{ MHz}$	C_{oss}	-	25	pF
Reverse Transfer Capacitance at $V_{DS} = 25 \text{ V}$, $f = 1 \text{ MHz}$	C_{rss}	-	5	pF
Turn On Time at $V_{DD} = 30 \text{ V}$, $R_L = 150 \Omega$, $I_D = 0.2 \text{ A}$, $V_{GS} = 10 \text{ V}$, $R_{GEN} = 25 \Omega$	t_{on}	-	20	ns
Turn Off Time at $V_{DD} = 30 \text{ V}$, $R_L = 150 \Omega$, $I_D = 0.2 \text{ A}$, $V_{GS} = 10 \text{ V}$, $R_{GEN} = 25 \Omega$	t_{off}	-	20	ns

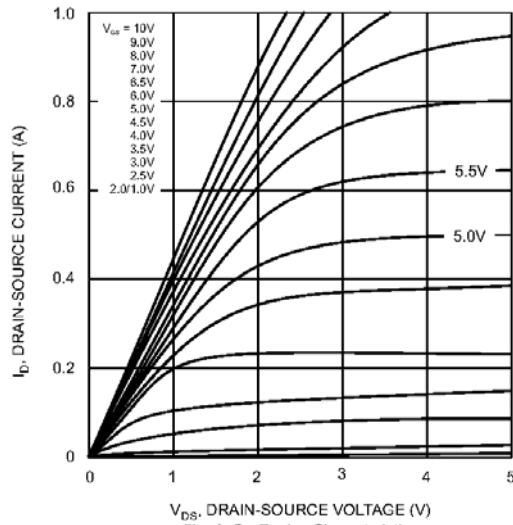


Fig. 1 On-Region Characteristics

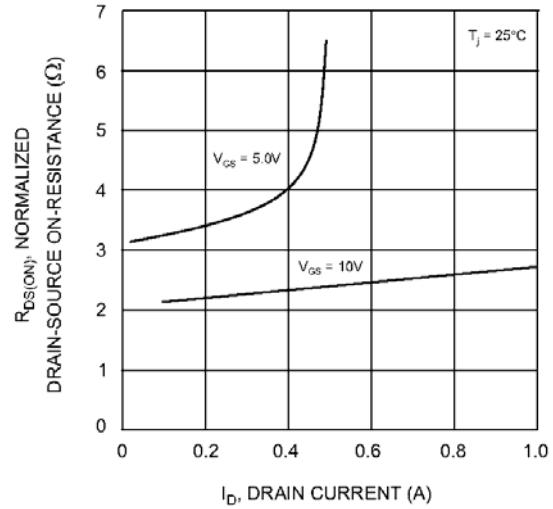


Fig. 2 On-Resistance vs Drain Current

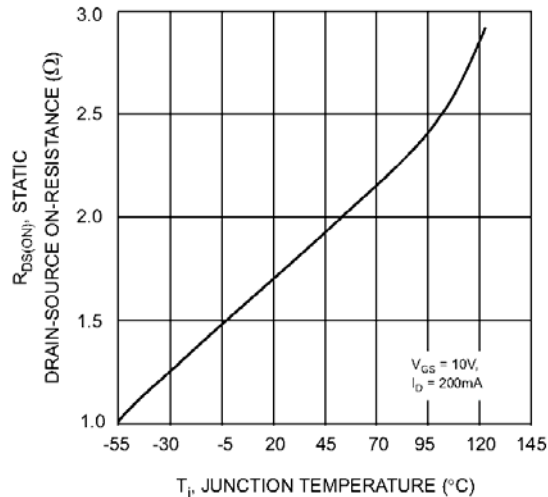


Fig. 3 On-Resistance vs Junction Temperature

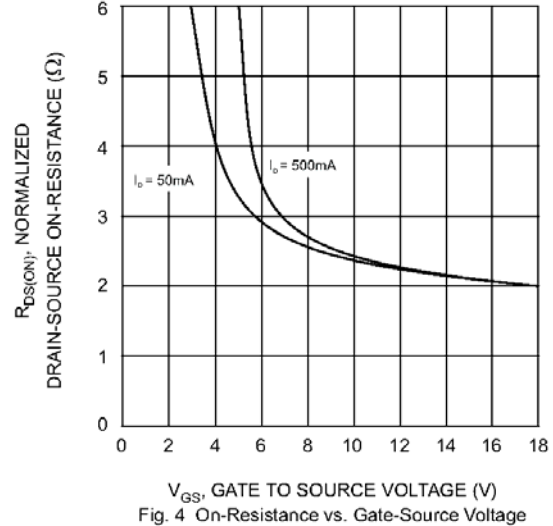


Fig. 4 On-Resistance vs. Gate-Source Voltage

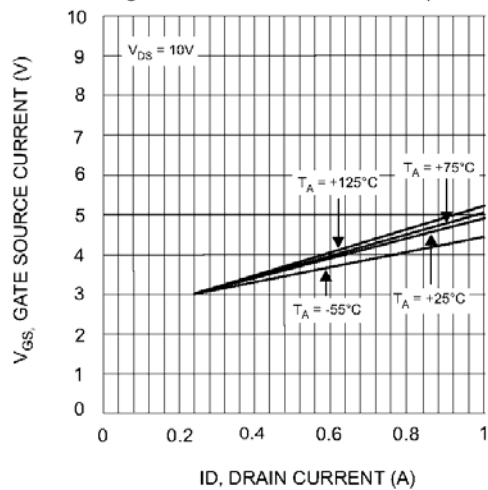
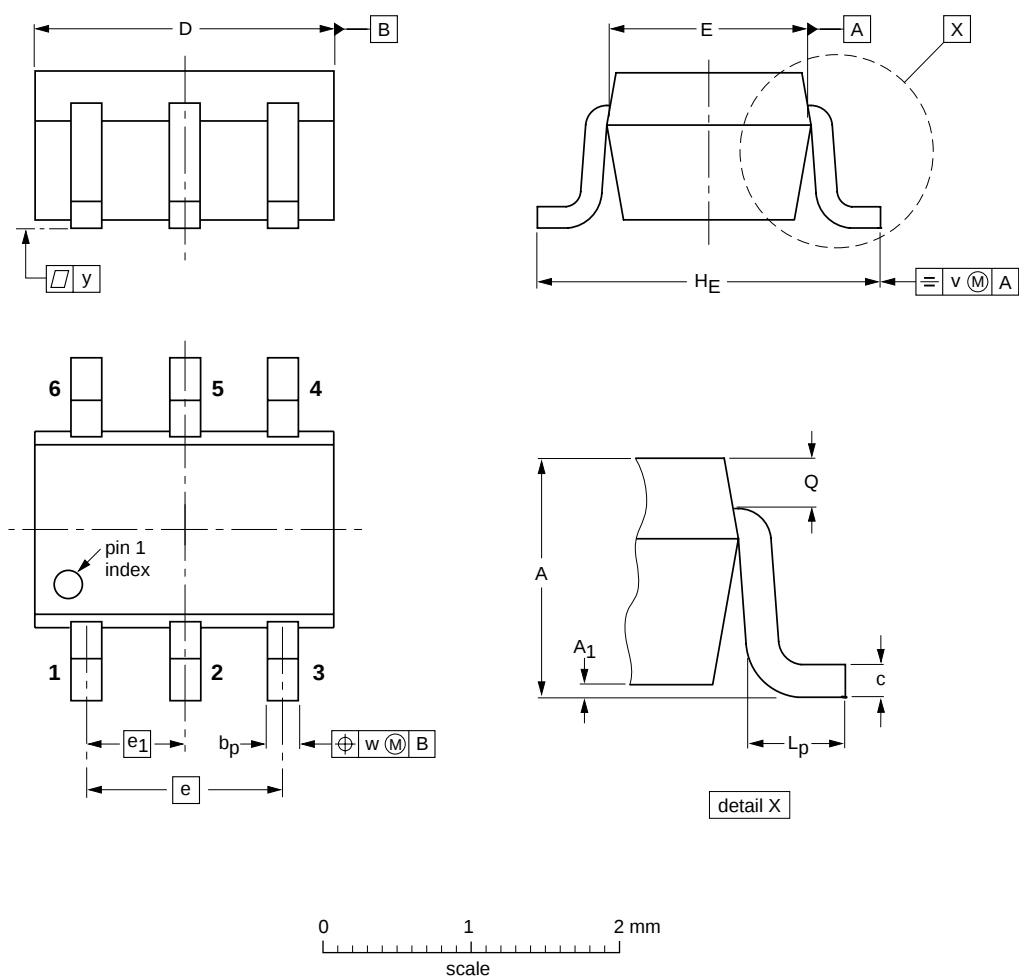


Fig. 5 Typical Transfer Characteristics

■ SOT-363



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1