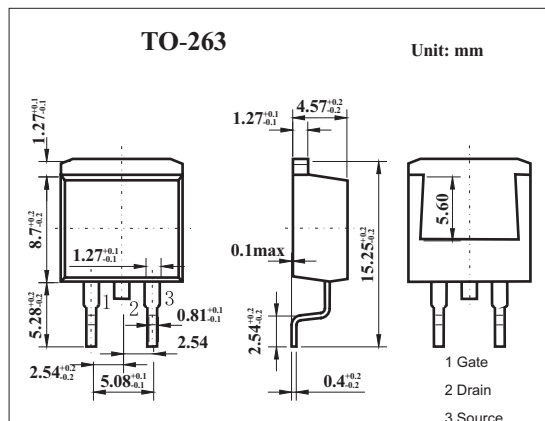


■ Features

- Super low on-state resistance:  
 $R_{DS(on)1} = 31 \text{ m}\Omega \text{ MAX. (} V_{GS} = 10 \text{ V, } I_D = 25 \text{ A)}$   
 $R_{DS(on)2} = 36 \text{ m}\Omega \text{ MAX. (} V_{GS} = 4.5 \text{ V, } I_D = 25 \text{ A)}$
- Low  $C_{iss}$ :  $C_{iss} = 3600 \text{ pF TYP.}$
- Built-in gate protection diode



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DS}$	100	V
Gate to source voltage	$V_{GS}$	$\pm 20$	V
Drain current	$I_D$	$\pm 50$	A
	$I_{dp}^*$	$\pm 100$	A
Power dissipation	$P_D$	$T_c=25^\circ\text{C}$	84
		$T_A=25^\circ\text{C}$	1.5
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*  $PW \leq 10 \mu\text{s}$ , Duty Cycle  $\leq 1\%$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain cut-off current	$I_{DSS}$	$V_{DS}=100\text{V}, V_{GS}=0$			10	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 20\text{V}, V_{DS}=0$			$\pm 10$	$\mu\text{A}$
Gate cutoff voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.5	2.0	2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=25\text{A}$	17	34		S
Drain to source on-state resistance	$R_{DS(on)1}$	$V_{GS}=10\text{V}, I_D=25\text{A}$		25	31	$\text{m}\Omega$
	$R_{DS(on)2}$	$V_{GS}=4.5\text{V}, I_D=25\text{A}$		27	36	$\text{m}\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		3600		pF
Output capacitance	$C_{oss}$			360		pF
Reverse transfer capacitance	$C_{rss}$			190		pF
Turn-on delay time	$t_{on}$	$I_D=25\text{A}, V_{GS(on)}=10\text{V}, R_G=0\Omega, V_{DD}=50\text{V}$		15		ns
Rise time	$t_r$			11		ns
Turn-off delay time	$t_{off}$			68		ns
Fall time	$t_f$			6.0		ns
Total Gate Charge	$Q_G$		$I_D=50\text{A}, V_{DD}=80\text{V}, V_{GS}=10\text{V}$		74	
Gate to Source Charge	$Q_{GS}$			10		nC
Gate to Drain Charge	$Q_{GD}$			20		nC