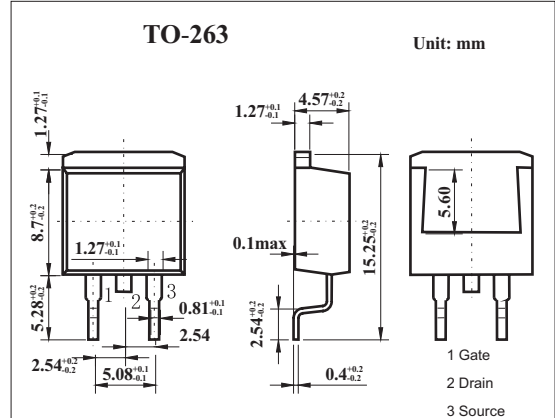


■ Features

- Super low on-state resistance:
 $R_{DS(on)1} = 26m\ \Omega$ MAX. ($V_{GS} = 10\ V, I_D = 42\ A$)
 $R_{DS(on)2} = 41\ m\ \Omega$ MAX. ($V_{GS} = 4\ V, I_D = 42\ A$)
- Low C_{iss} : $C_{iss} = 1500\ pF$ TYP.
- Built-in gate protection diode



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	V_{GSS}	± 20	V
Drain current	I_D	± 40	A
	I_{dp}^*	± 160	A
Power dissipation	P_D	$T_c=25^\circ C$	47
		$T_a=25^\circ C$	1.5
Channel temperature	T_{ch}	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

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

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I_{bss}	$V_{DS}=60V, V_{GS}=0$			10	μA
Gate leakage current	I_{gss}	$V_{GS} = \pm 20V, V_{DS}=0$			± 10	μA
Gate cutoff voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	1.5	2.0	2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=20A$	11	22		S
Drain to source on-state resistance	$R_{DS(on)1}$	$V_{GS}=10V, I_D=20A$		22	26	$m\ \Omega$
	$R_{DS(on)2}$	$V_{GS}=4V, I_D=20A$		29	41	$m\ \Omega$
Input capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		1500		pF
Output capacitance	C_{oss}				250	pF
Reverse transfer capacitance	C_{rss}			120		pF
Turn-on delay time	t_{on}	$I_D=20A, V_{GS(on)}=10V, R_G=10\ \Omega, V_{DD}=30V$		35		ns
Rise time	t_r			320		ns
Turn-off delay time	t_{off}			89		ns
Fall time	t_f			120		ns
Total Gate Charge	Q_G	$I_D = 40A, V_{DD} = 48V, V_{GS} = 10\ V$		30		nC
Gate to Source Charge	Q_{GS}			5		nC
Gate to Drain Charge	Q_{GD}			8		nC