TY Semicondutor® **TY**

2SK3458

Features

- Low gate charge

  Q_G = 25 nC TYP. (V_{DD} = 450 V, V_{GS} = 10 V, I_D = 6.0 A)

- Gate voltage rating ± 30 V

- Low on-state resistance

  $R_{DS(on)}$ = 2.2 Ω MAX. (V_{GS} = 10 V, I_D = 3.0 A)

- Avalanche capability ratings

- Surface mount package available

TO-263   Unit: mm

1 Gate
2 Drain
3 Source
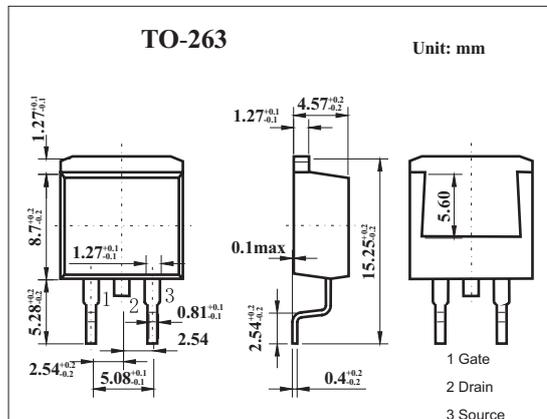
Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	800	V
Gate to source voltage	V_{GSS}	± 30	V
Drain current	I_D	± 6.0	A
	I_{dp} *	± 24	A
Power dissipation Tc=25℃	P_D	100	W
TA=25℃		1.5	
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤10μs,Duty Cycle≤1%

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=800V,V_{GS}=0			100	μA
Gate leakage current	I_{GSS}	V_{GS}=± 30V,V_{DS}=0			± 100	μA
Gat cutoff voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	2.5		3.5	V
Forward transfer admittance	$\mid Y_{fs} \mid$	V_{DS}=10V,I_D=3.0A	2.0			S
Drain to source on-state resistance	$R_{DS(on)1}$	V_{GS}=10V,I_D=3.0A		1.8	2.2	Ω
Input capacitance	C_{iss}			1220		pF
Output capacitance	C_{oss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		170		pF
Reverse transfer capacitance	C_{rss}			16		pF
Turn-on delay time	t_{on}			17		ns
Rise time	t_r	I_D=3.0A,$V_{GS(on)}$=10V,R_G=10		7		ns
Turn-off delay time	t_{off}	Ω,V_{DD}=150V		43		ns
Fall time	t_f			11		ns
Total Gate Charge	Q_G			25		nC
Gate to Source Charge	Q_{GS}	I_D =6.0A, V_{DD} =450V, V_{GS} = 10 V		6		nC
Gate to Drain Charge	Q_{GD}			10		nC