

### DESCRIPTION

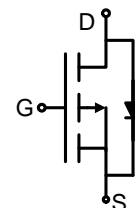
The TCS1025 uses advanced trench technology to provide excellent  $R_{DS(ON)}$ , low gate charge and operation with gate voltages as low as 2.5V. This device is suitable for use as a load switch or in PWM applications.

### GENERAL FEATURES

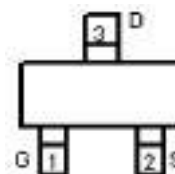
- $V_{DS} = -20V, I_D = -4.1A$   
 $R_{DS(ON)} < 60m\Omega @ V_{GS} = -2.5V$   
 $R_{DS(ON)} < 48m\Omega @ V_{GS} = -4.5V$
- High Power and current handing capability
- Lead free product is acquired
- Surface Mount Package

### Application

- PWM applications
- Load switch
- Power management



Schematic diagram



Marking and pin Assignment



SOT-23 top view

### Package Marking And Ordering Information

Device Marking	Device	Device Package	Reel Size	Tape width	Quantity
	TCS1025-C	SOT-23	Ø180mm	8 mm	3000 units

### Absolute Maximum Ratings (TA=25°C unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-Source Voltage		$V_{DS}$	-20	V
Gate-Source Voltage		$V_{GS}$	±12	V
Continuous Drain Current	$T_C = 25^\circ C$	$I_D$	-4.1	A
	$T_C = 70^\circ C$		-3.2	
	$T_A = 25^\circ C$		-3	
	$T_A = 70^\circ C$		-2.3	
Drain Current -Pulsed (Note 1)		$I_{DM}$	-15	A
Maximum Power Dissipation		$P_D$	1.7	W
Operating Junction and Storage Temperature Range		$T_J, T_{STG}$	-55 To 150	°C

### Thermal Characteristic

Thermal Resistance, Junction-to-Ambient (Note 2)	$R_{\theta JA}$	74	°C/W
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### Electrical Characteristics (TA=25°C unless otherwise noted)