New Product

SUM45N25-58

Vishay Siliconix

N-Channel 250-V (D-S) 175 °C MOSFET

PRODUCT SUMMARY		
$V_{(BR)DSS}$ (V)	$r_{DS(on)}$ (Ω)	I_D (A)
250	0.058 at V_{GS} = 10 V	45
	0.062 at V_{GS} = 6 V	43

FEATURES

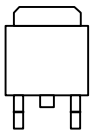
- TrenchFET® Power MOSFETS
- 175 °C Junction Temperature
- New Low Thermal Resistance Package

RoHS COMPLIANT

APPLICATIONS

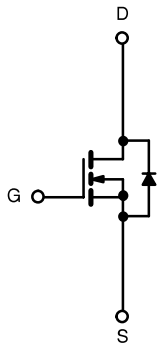
- Primary Side Switch
- Plasma Display Panel Sustainer Function

TO-263



Top View

Ordering Information: SUM45N25-58-E3 (Lead (Pb)-free)



N-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS T_C = 25 °C, unless otherwise noted				
Parameter		**Symbol**	**Limit**	**Unit**
Drain-Source Voltage		V_{DS}	250	V
Typical Avalanche Voltage[d]		$V_{DS\ (Avalanche)}$ Typ	300	
Gate-Source Voltage		V_{GS}	± 30	
Continuous Drain Current (T_J = 175 °C)	T_C = 25 °C	I_D	45	A
	T_C = 125 °C		25	
Pulsed Drain Current		I_{DM}	90	
Avalanche Current		I_{AR}	35	
Repetitive Avalanche Energy[a]	L = 0.1 mH	E_{AR}	61	mJ
Maximum Power Dissipation[a]	T_C = 25 °C	P_D	375[b]	W
	T_A = 25 °C[c]		3.75	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	- 55 to 175	°C

THERMAL RESISTANCE RATINGS			
Parameter	**Symbol**	**Limit**	**Unit**
Junction-to-Ambient (PCB Mount)[c]	R_{thJA}	40	°C/W
Junction-to-Case (Drain)	R_{thJC}	0.4	

Notes:
a. Duty cycle ≤ 1 %.
b. See SOA curve for voltage derating.
c. When Mounted on 1" square PCB (FR-4 material).
d. Guaranteed by design