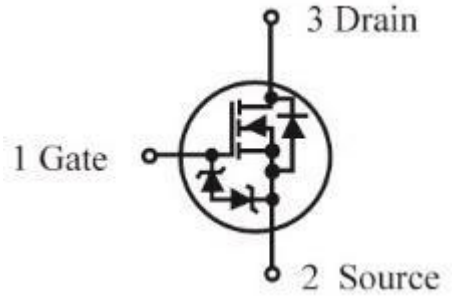
BSS138

N-Channel Enhancement Mode MOSFET



SOT-23



Features

- 50V/0.2A,$R_{DS(ON)}$=3.5Ω(max)@V_{GS}=5V,I_D=0.2A.
  $R_{DS(ON)}$=10Ω(max)@V_{GS}=2.75V,I_D=0.2A.
- Super High dense cell design for extremely low $R_{DS(ON)}$.
- Reliable and Rugged.
- Low Threshold Voltage (0.5V~1.5 V)Make it Ideal for Low Voltage Applications.
- ESD protected.
- SOT-23 for Surface Mount Package.

Marking: SS

Applications

- Power Management in DC/DC Converters
- Portable and Battery-powered Products

Absolute Maximum Ratings(T_A=25℃,unless otherwise noted.)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	50	V
Gate-source Voltage	V_{GS}	±20	V
Drain Current-Continuous	I_D	0.2	A

Electrical Characteristics(T_A=25℃,unless otherwise noted.)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Off Characteristics						
Drain-source breakdown voltage	BV_{DSS}	V_{GS}=0V, I_D=250μA	50			V
Drain-source leakage current	I_{DSS}	V_{DS}=50V, V_{GS}=0V			0.5	μA
		V_{DS}=25V, V_{GS}=0V			0.1	μA
Gate-source leakage current,Forward	I_{GSSF}	V_{GS}=20V, V_{DS}=0V			300	nA
Gate-source leakage current,Reverse	I_{GSSR}	V_{GS}=-20V, V_{DS}=0V			-300	nA

On Characteristics						
Gate Threshold voltage	$V_{GS(th)}$	V_{DS}=V_{GS} , I_D=1.0mA	0.5		1.5	V
Drain-source on resistance	$R_{DS(on)}$	V_{GS}= 5.0V, I_D= 0.2A			3.5	Ω
		V_{GS}= 2.75V, I_D= 0.2A			10	Ω
Drain-Source Diode Characteristics						
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V, I_D= 0.2A			2.5	V
Dynamic Characteristics						
Input Capacitance	C_{ISS}	V_{DS}=25V,V_{GS}=0V, f=1MHz		31		pF
Output Capacitance	C_{OSS}			4		pF
Reverse Transfer Capacitance	C_{RSS}			3		pF
Internal Gate Resistance	R_G	f=1MHz		61		Ω

Typical Characteristics

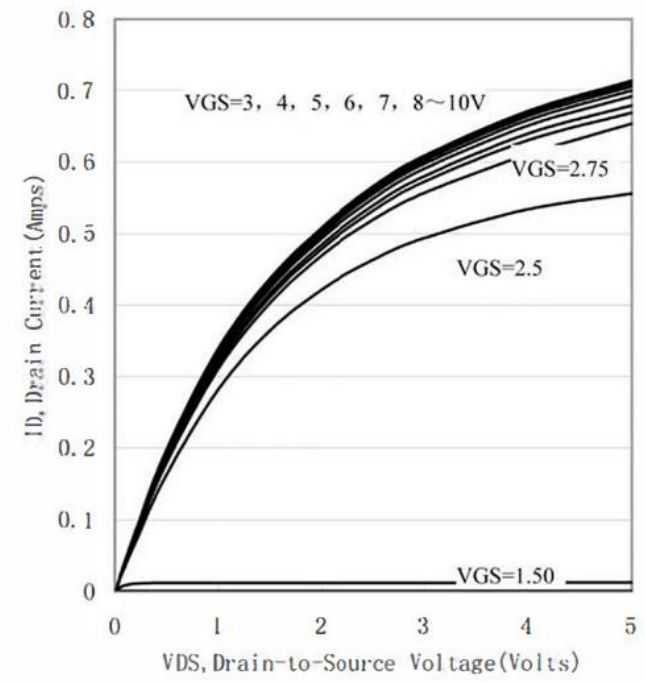


Figure 1. Output Characteristics

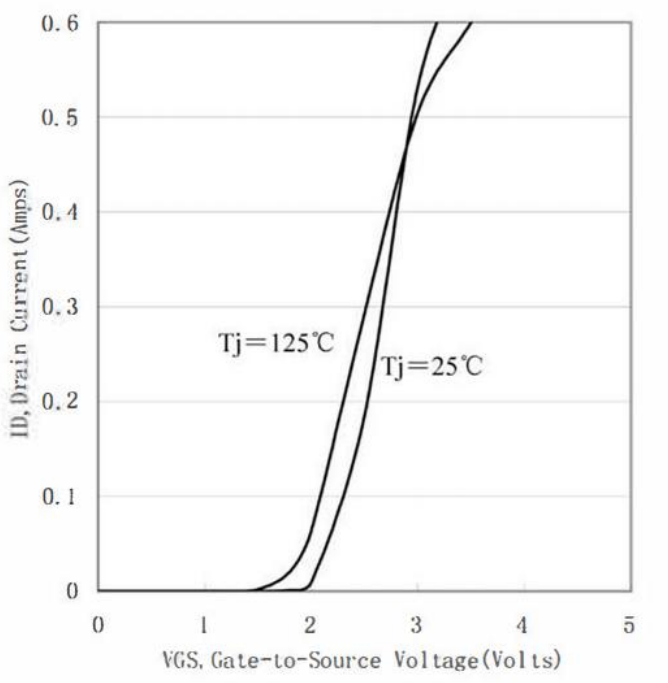


Figure 2. Transfer Characteristics

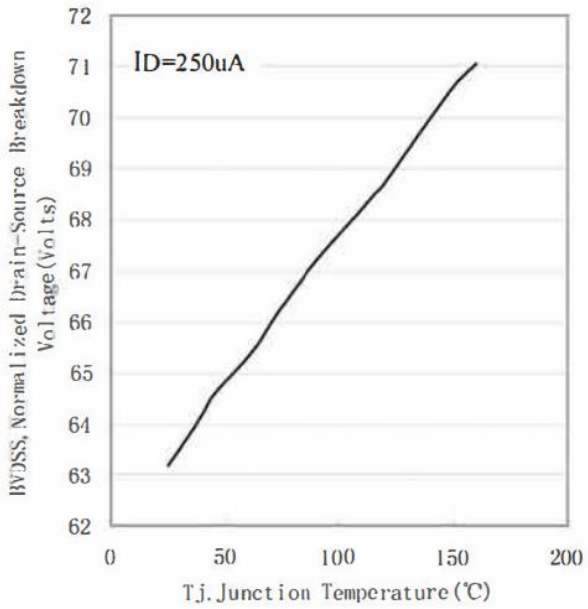


Figure 3. Breakdown Voltage Variation with Temperature

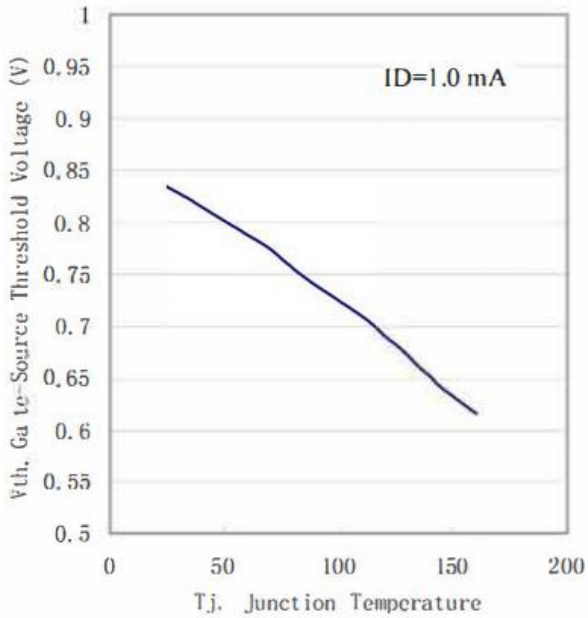


Figure 4. Gate Threshold Variation with Temperature

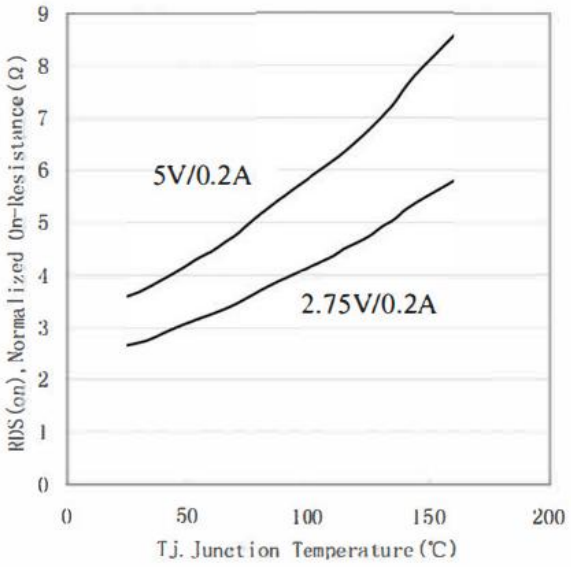


Figure 5. On-Resistance Variation with Temperature

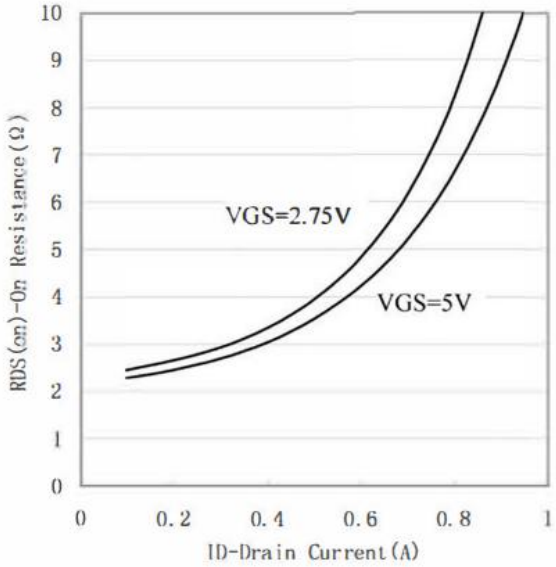


Figure 6. On-Resistance vs. Drain Current

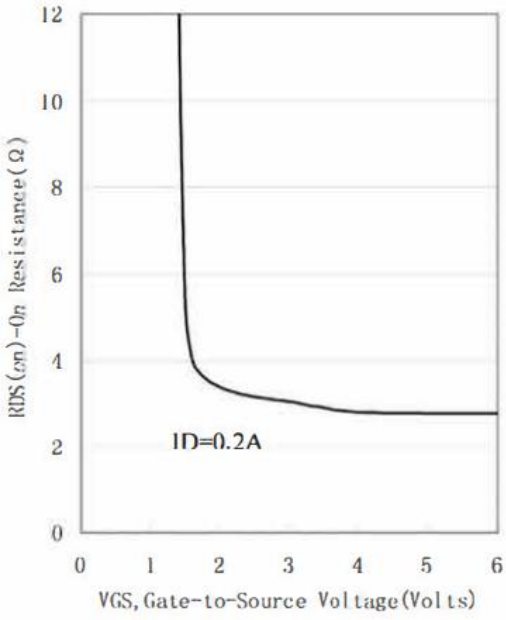


Figure 7. On-Resistance vs. Gate-to-Source Voltage

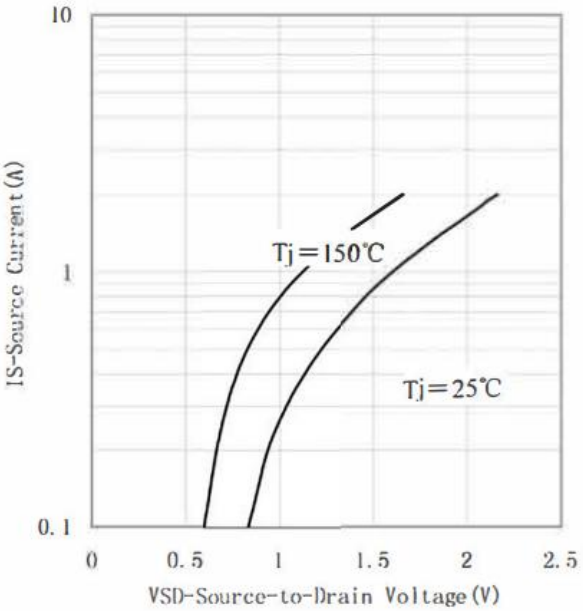
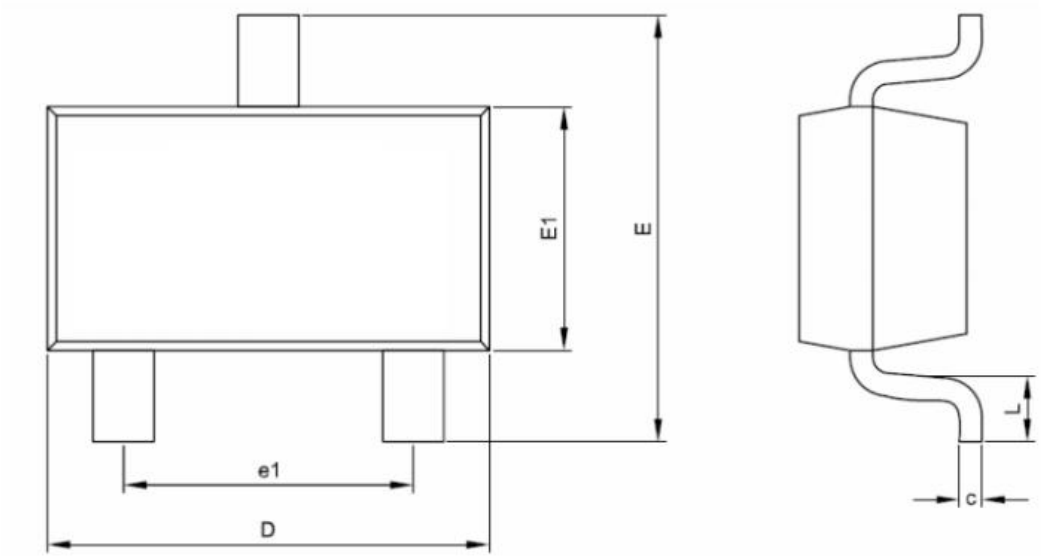


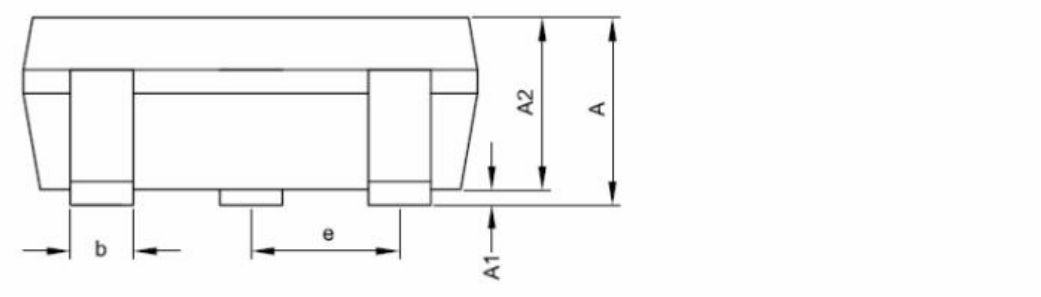
Figure 8. Source-Drain Diode Forward Voltage

Package Information

SOT-23

Dimensions in mm





Symbol	Dimensions In Millimeters	
	MIN.	MAX.
A	—	1.12
A1	0.00	0.1
A2	0.90	1.02
D	2.90 BSC	
E	2.40 BSC	
E1	1.20	1.40
c	0.08	0.25
b	0.30	0.50
e	0.95 BSC	
e1	1.90 BSC	
L	0.20	0.60

ENTEGRECİ

Bu belge www.entegreci.com üzerinden sunulmaktadır.

Elektronik komponent tedarikinde Entegreci

Entegreci, Eskişehir merkezli, Türkiye geneline satış yapan bir elektronik komponent mağazasıdır. Entegreler (IC), mikrodenetleyiciler, transistörler, diyotlar, pasif elemanlar, konnektörler, modüller ve geliştirme kartları tek adetten seri üretim adetlerine kadar satılır. Ürün sayfalarında güncel stok durumunu, fiyatı ve datasheet bağlantısını bulabilirsiniz.

Parça koduyla arama

Üretici parça numarasını yazın; stok ve fiyatı hemen görün.

www.entegreci.com

Ürün kategorileri

Entegreden kapasitöre tüm elektronik komponent kategorileri.

Kategorilere göz atın

Üreticiler

Aradığınız üreticinin ürünlerini tek sayfada inceleyin.

Üreticileri görün

Toplu alım ve teklif

Listede olmayan ya da yüksek adetli parçalar için teklif isteyin.

Teklif isteyin

www.entegreci.com | **destek@entegreci.com** | **0850 305 90 34**

Entegreci is an online electronic components store based in Türkiye. Search by manufacturer part number to see stock, prices and datasheets for integrated circuits, microcontrollers, transistors, passive components and connectors, or request a quote for parts that are not listed.

Bu sayfa Entegreci tarafından eklenmiştir. Belgenin önceki sayfaları asıl yayıncısına aittir ve içeriği değiştirilmemiştir; en güncel sürüm için belgenin yayıncısına başvurun.