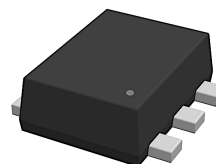
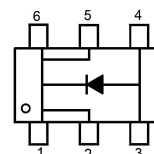


Features

- Low forward voltage drop
- Halogen and Antimony Free (HAF), RoHS compliant



SOT-563



Schematic Diagram

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

Parameter	Symbols	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	5	A
Power Dissipation	P _{tot}	220	mW
Typical Thermal Resistance, Junction to Ambient ¹	R _{θJA}	421	°C/W
Operating Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =1mA	40	-	-	V
Forward Voltage	V _F	I _F =100mA	-	-	0.38	V
		I _F =500mA	-	-	0.49	
		I _F =1A	-	-	0.61	
Reverse Current	I _R	V _R =5V	-	-	10	μA
		V _R =8V	-	-	20	
		V _R =15V	-	-	50	
		V _R =30V, T _J =125°C	-	4	-	mA

Notes:

1. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Electrical Characteristic Curves

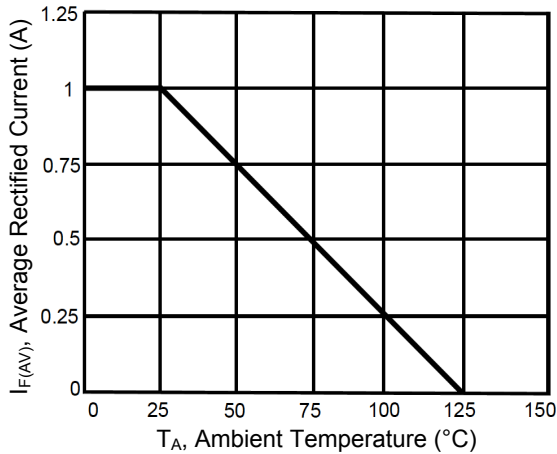


Figure 1. Average Current Derating Curve

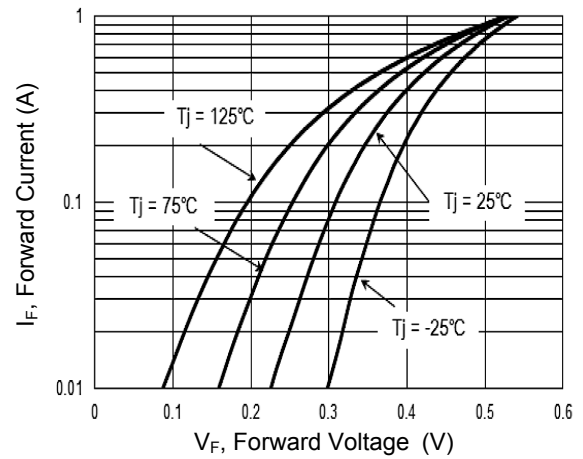


Figure 2. Forward Characteristics Curve

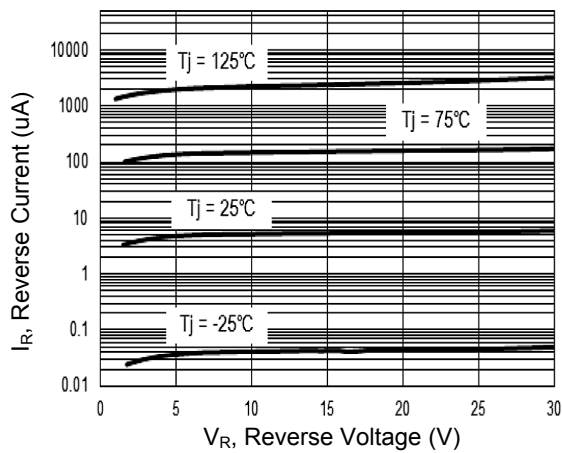


Figure 3. Reverse Characteristics Curve

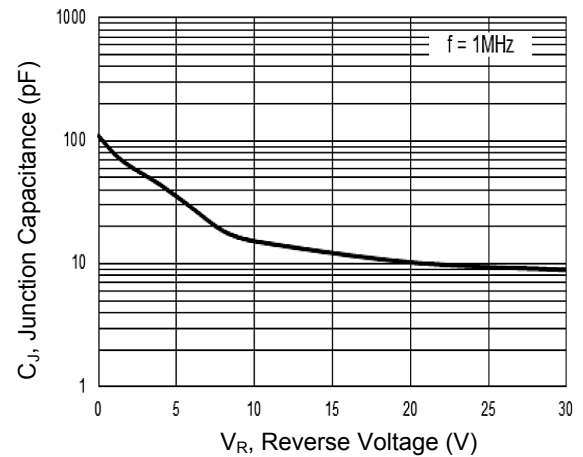
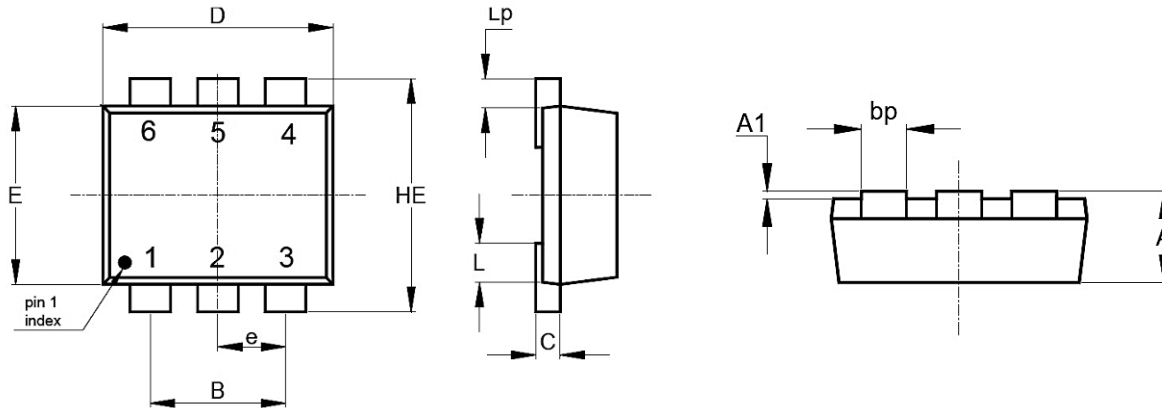


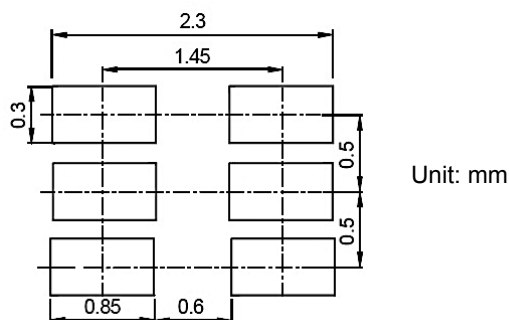
Figure 4. Junction Capacitance

Package Outline Dimensions (SOT-563)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.500	0.600	0.020	0.024
A1	0.000	0.050	0.000	0.002
B	1.000 TYP		0.039 TYP	
C	0.100	0.180	0.004	0.007
D	1.500	1.700	0.059	0.067
E	1.100	1.250	0.043	0.049
HE	1.550	1.700	0.061	0.067
e	0.500 TYP		0.020 TYP	
L	0.020	0.150	0.001	0.006
Lp	0.100	0.300	0.004	0.012
bp	0.150	0.300	0.006	0.012

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSDE01U40S	SOT-563	SM	Tape & Reel	4,000 Pcs / Reel