

1. Features

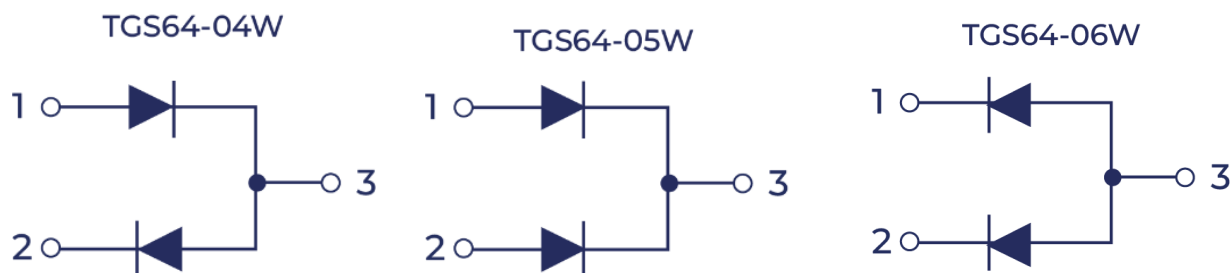
- High voltage, current controlled
- RF resistor for RF attenuators and switches
- Low diode capacitance
- Low diode forward resistance
- Low series inductance
- For applications up to 3 GHz



SOT-323

2. Application

- RF attenuators and switches



Maximum Ratings ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Continuous reverse voltage	V_R	175	V
Continuous forward current	I_F	100	mA
Power dissipation	P_D	200	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	$^\circ\text{C}$

MOSFET electrical characteristics

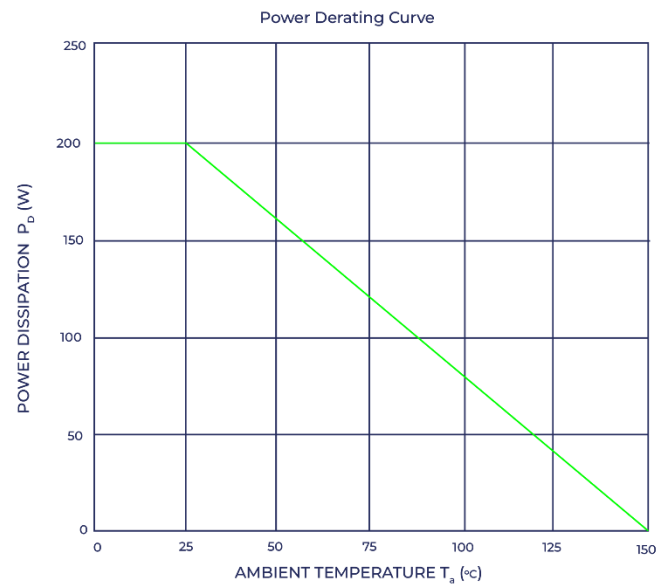
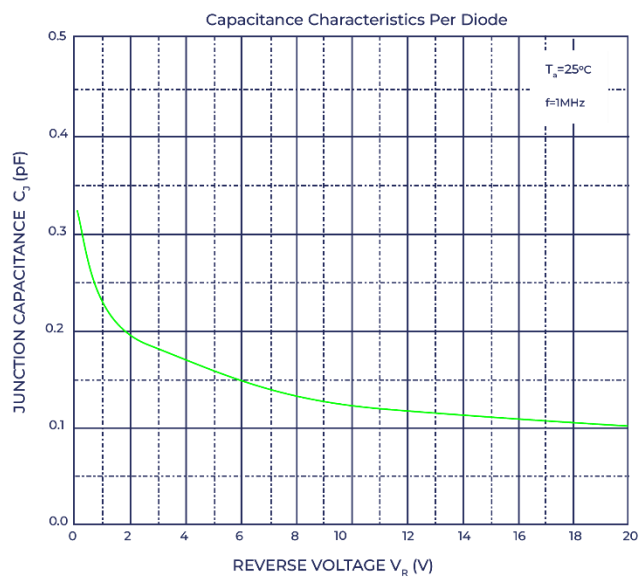
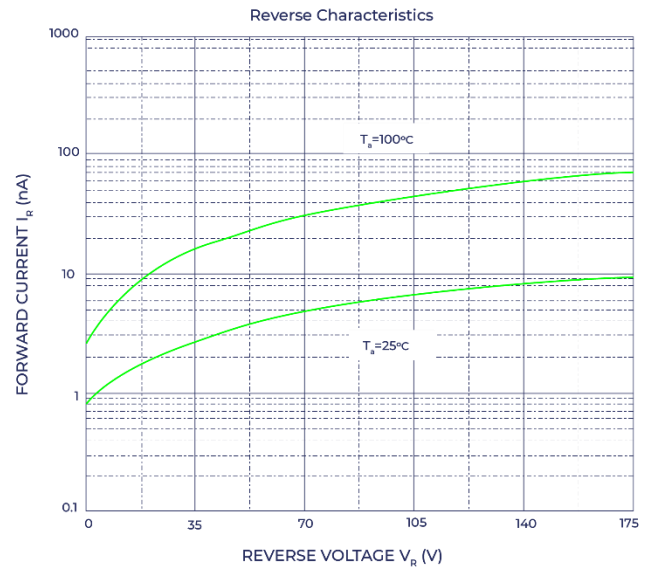
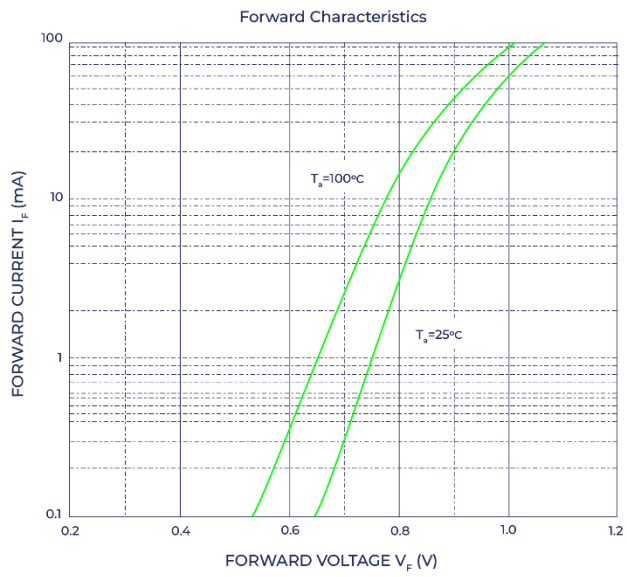
Ta = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 50 mA			1.1	V
Reverse Current	I _{R1}	V _{R1} = 175 V			10	μA
	I _{R2}	V _{R2} = 20 V			1	
Diode Capacitance	C _{d1}	V _R = 0 V, f = 1 MHz		0.52		pF
	C _{d2}	V _R = 1 V, f = 1 MHz			0.5	
	C _{d3}	V _R = 20 V, f = 1 MHz			0.35	
Diode Forward Resistance (note 1)	r _{d1}	I _F = 0.5 mA, f = 100 MHz			40	Ω
	r _{d2}	I _F = 1 mA, f = 100 MHz			20	
	r _{d3}	I _F = 10 mA, f = 100 MHz			3.8	
	r _{d4}	I _F = 100 mA, f = 100 MHz			1.35	
Charge Carrier Life Time	τ _L	When switched from I _F = 10 mA to I _R = 6 mA; R _L = 100 Ω; measured at I _R = 3 mA		1.55		μs
Series Inductance	L _S	I _F = 10 mA, f = 100 MHz TGS64-04W/05W/06W		1.6		nH
				1.4		

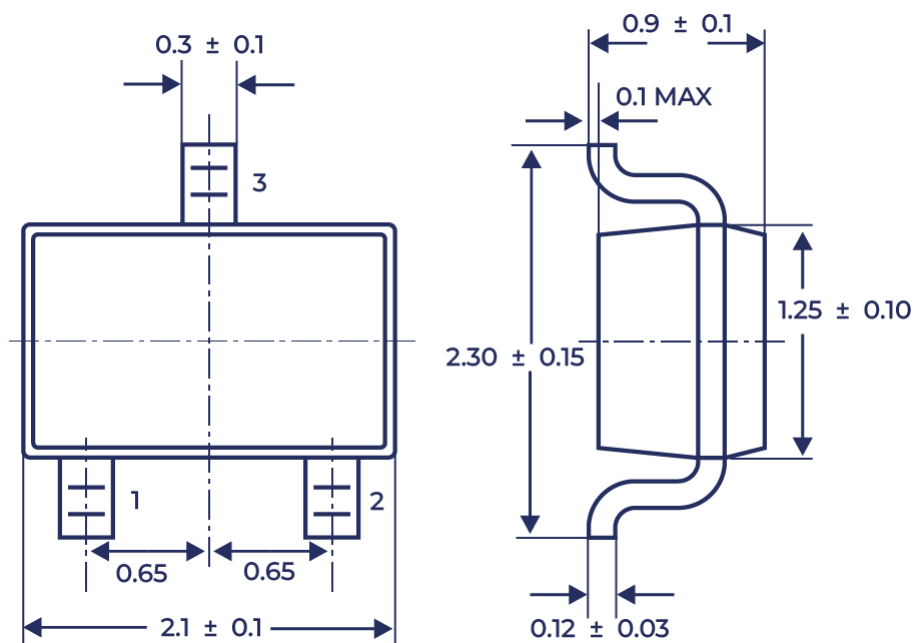
Note:

1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

Typical Characteristics



SOT-323 Package Outline Dimensions



Marking information

