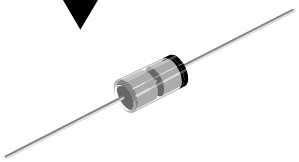
1N4454

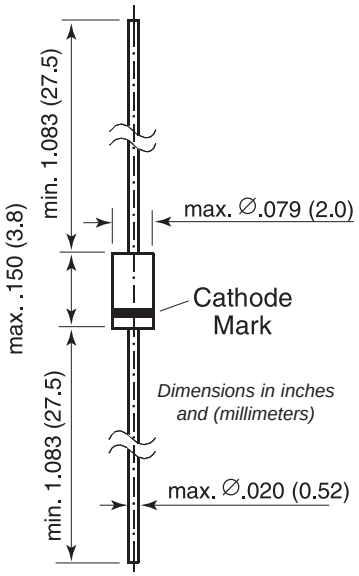
Vishay Semiconductors
formerly General Semiconductor



Small-Signal Diode

Reverse Voltage 100V
Forward Current 150mA

DO-204AH (DO-35 Glass)



Features

- Silicon Epitaxial Planar Diode
- Fast switching diode

Mechanical Data

Case: DO-35 Glass Case
Weight: approx. 0.13g
Packaging Codes/Options:
F2/10K per Ammo tape (52mm), 50K/box
F3/10K per 13" reel (52mm tape), 50K/box

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Reverse voltage	V_R	75	V
Peak reverse voltage	V_{RM}	100	V
Maximum average rectified current half wave rectification with resistive load at T_{amb} = 25°C and f ≥ 50Hz(1)	$I_{F(AV)}$	150	mA
Surge forward current at t < 1s and T_j = 25°C	I_{FSM}	500	mA
Maximum power dissipation at T_{amb} = 25°C(1)	P_{tot}	500	mW
Thermal resistance junction to ambient air(1)	$R_{\theta JA}$	350	°C/W
Maximum junction temperature	T_J	175	°C
Storage temperature range	T_S	–65 to +175	°C

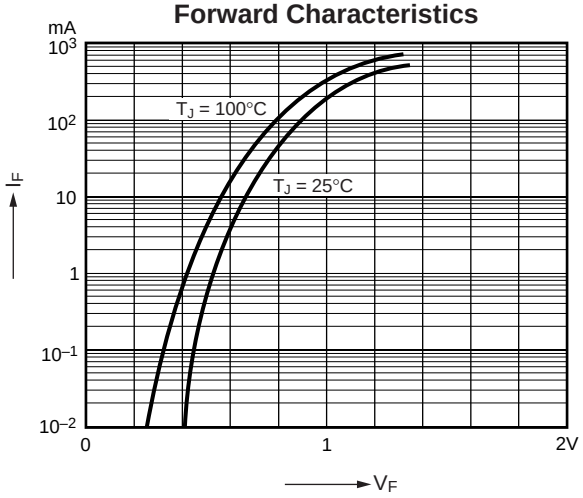
Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Min.	Max.	Unit
Maximum forward voltage drop at I_F = 10mA	V_F	–	1.0	V
Leakage current at V_R = 50V at V_R = 75V	I_R	–	100 5	nA µA
Reverse breakdown voltage tested with 100µA pulses	$V_{(BR)R}$	100	–	V
Capacitance at V_F = V_R = 0V	C_{tot}	–	2	pF
Reverse recovery time from I_F = 10mA to I_R = 1mA, V_R = 6V, R_L = 100Ω	t_{rr}	–	4	ns
Rectification efficiency at f = 100MHz, V_{RF} = 2V	η_v	0.45	–	–

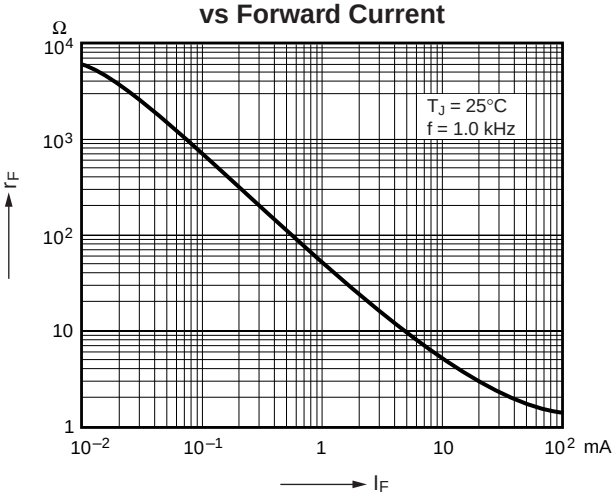
Note:
(1) Valid provided that leads at a distance of 8mm from case are kept at ambient temperature

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

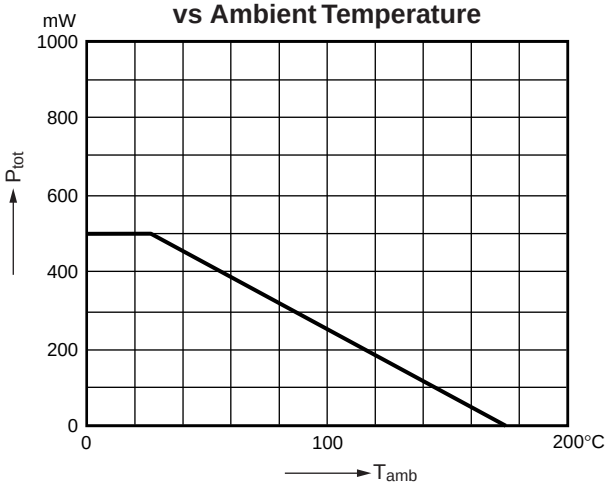
Forward Characteristics



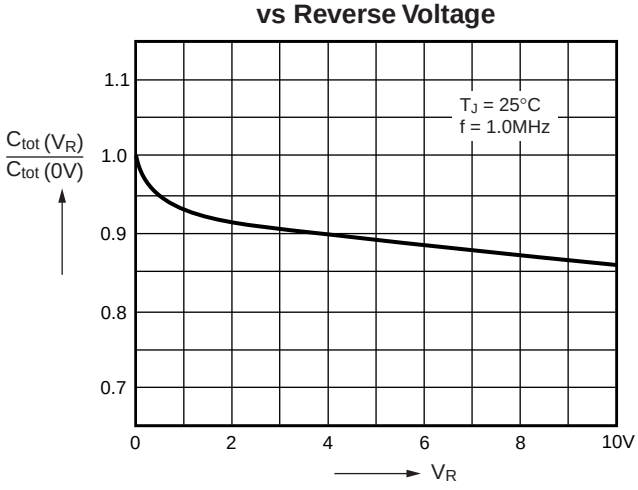
Dynamic Forward Resistance vs Forward Current



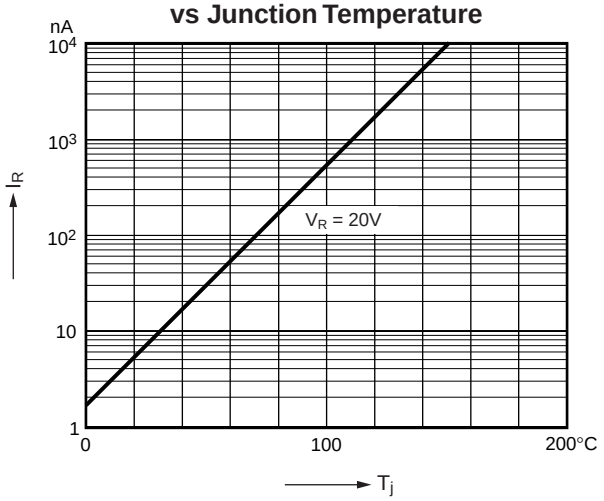
Admissible Power Dissipation vs Ambient Temperature



Relative Capacitance vs Reverse Voltage



Leakage Current vs Junction Temperature



Admissible Repetitive Peak Forward Current vs Pulse Duration