

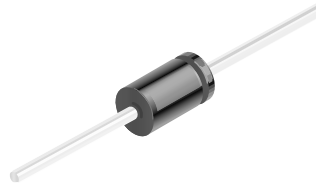


1N5400 - 1N5408

1N5400-1N5408

Features

- 3.0 ampere operation at $T_A = 75^\circ\text{C}$ with no thermal runaway.
- High current capability.
- Low leakage.



DO-201AD
COLOR BAND DENOTES CATHODE

General Purpose Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value										Units
		5400	5401	5402	5403	5404	5405	5406	5407	5408		
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	300	400	500	600	800	1000		V
$I_{F(AV)}$	Average Rectified Forward Current, .375" lead length @ $T_A = 75^\circ\text{C}$	3.0										A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	200										A
T_{stg}	Storage Temperature Range	-55 to +150										$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150										$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	6.25	W
R_{JA}	Thermal Resistance, Junction to Ambient	20	$^\circ\text{C}/\text{W}$

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Device										Units
		5400	5401	5402	5403	5404	5405	5406	5407	5408		
V_F	Forward Voltage @ 3.0 A	1.2										V
I_{rr}	Maximum Full Load Reverse Current, Full Cycle $T_A = 105^\circ\text{C}$	0.5										mA
I_R	Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500										μA μA
C_T	Total Capacitance $V_R = 4.0\text{ V}$, $f = 1.0\text{ MHz}$	30										pF

Typical Characteristics

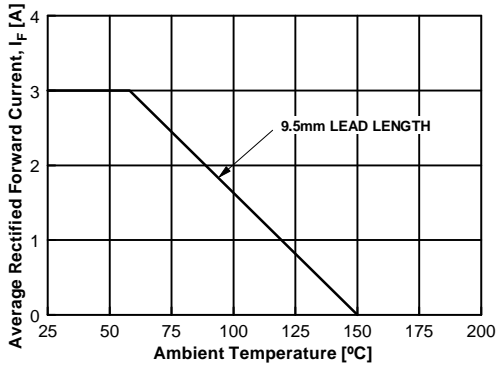


Figure 1. Forward Current Derating Curve

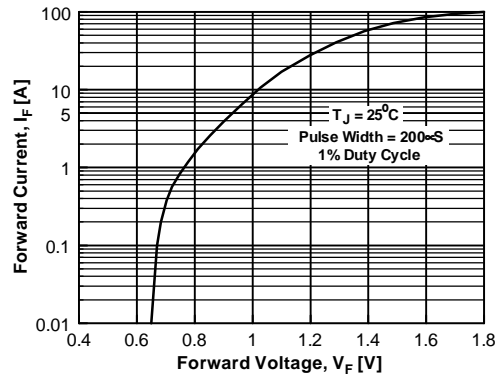


Figure 2. Forward Voltage Characteristics

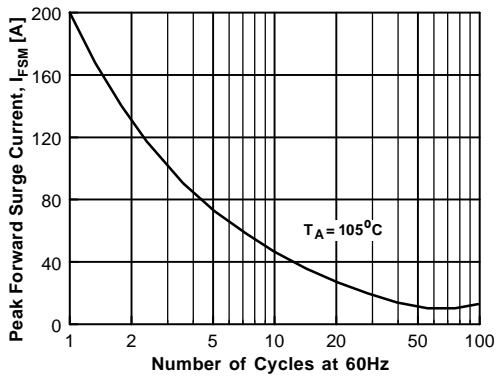


Figure 3. Non-Repetitive Surge Current

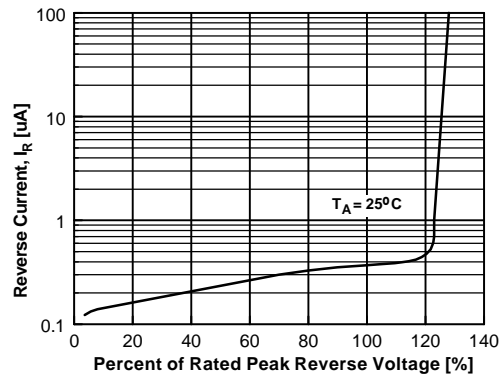


Figure 4. Reverse Current vs Reverse Voltage

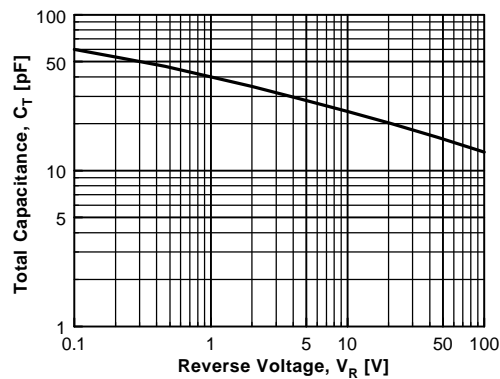


Figure 5. Total Capacitance

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CoolFET™	GlobalOptoisolator™	MicroPak™	QS™	SyncFET™
CROSSVOLT™	GTO™	MICROWIRE™	QT Optoelectronics™	TCM™
DOMET™	HiSeC™	MSX™	Quiet Series™	TinyLogic®
EcoSPARK™	I ² C™	MSXPro™	RapidConfigure™	TINYOPTO™
E ² C MOS™	i-Lo™	OCX™	RapidConnect™	TruTranslation™
EnSigna™	ImpliedDisconnect™	OCXPro™	μSerDes™	UHC™
FACT™	IntelliMAX™	OPTOLOGIC®	ScalarPump™	UniFET™
FACT Quiet Series™		OPTOPLANAR™	SILENT SWITCHER®	UltraFET®
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The Power Franchise®		POP™	SPM™	Wire™
Programmable Active Droop™		Power247™	Stealth™	

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