

FEATURES

- ◇ Hyper fast recovery time
- ◇ Soft recovery characteristics
- ◇ Low forward voltage
- ◇ Low stored charge
- ◇ Low leakage current
- ◇ Low recovery loss
- ◇ High junction temperature
- ◇ Epitaxial planar construction

MACHANICAL DATA

- ◇ Case: DO-201AD(DO-27) outline plastic package
- ◇ Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ◇ Molding Compound Flammability Rating:UL94-0
- ◇ High temperature soldering guaranteed:
260°C /10second

ORDERING INFORMATION

- ◇ Device: HFD10G40Z
- ◇ Package: DO-201AD(DO-27)
- ◇ Marking: As marked
- ◇ Material: RoHS compliant
- ◇ Packing: Tape & Ammo
- ◇ Quantity per box: 1,250pcs

APPLICATIONS

- ◇ Switching mode power supply
- ◇ Motor control
- ◇ Inverters, Converters
- ◇ Freewheeling, Snubber, PFC circuits
- ◇ Polarity protection

SYMBOL



PACKAGE OUTLINE



ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
V_{RRM}	DC Blocking Voltage	400	V
$I_{F(AV)}$	Average Forward Current	10	A
I_{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave	80	A
T_J	Operating Junction Temperature	-55~+175	°C
T_{STG}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_F	Forward Voltage	$I_F = 10A$ Ta=25°C		1.15	1.35	V
		$I_F = 10A$ Ta=125°C		1.00	1.25	V
V_R	Reverse Breakdown Voltage	$I_R = 50\mu A$	400			V
I_R	Reverse Leakage Current	$V_R = 400V$ Ta=25°C			2	μA
		$V_R = 400V$ Ta=125°C			50	μA
T_{rr}	Reverse Recovery Time	$I_F = 0.5A, I_R = 1A$ $I_{rr} = 0.25A$		22	30	ns
		$I_F = 1A, V_R = 30V$ $di/dt = -200A/\mu s$		22		ns

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

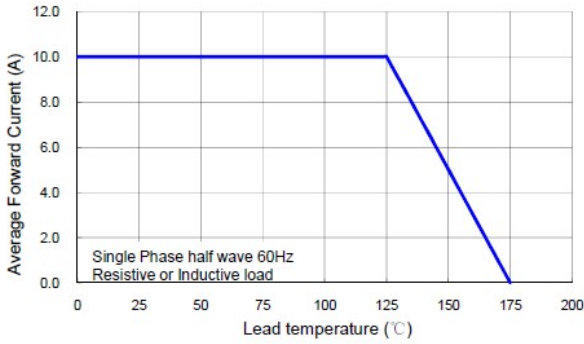


Fig 2 Max. Non-repetitive Forward Surge Current

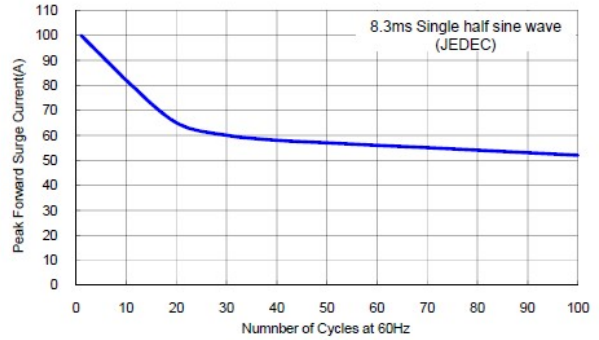


Fig 3 Typical Instantaneous Forward Characteristics

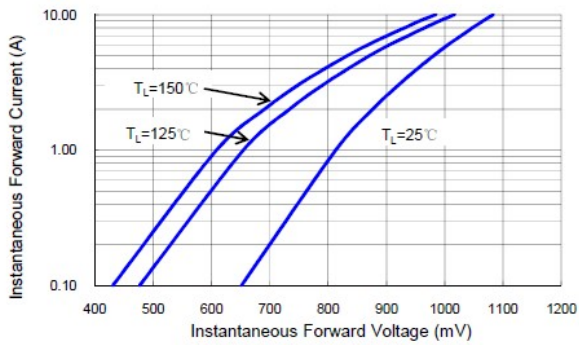
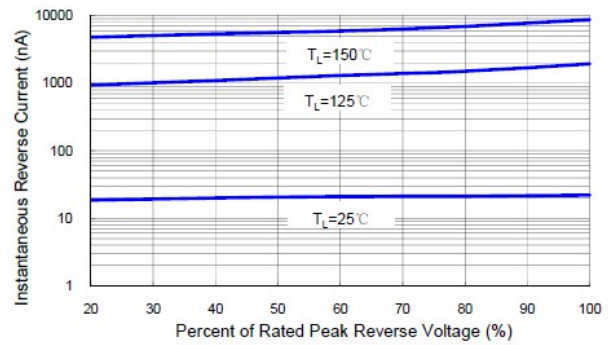
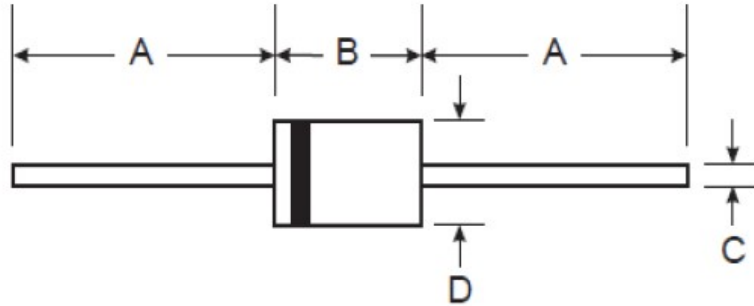


Fig 4 Typical Reverse Characteristics



DO-201AD(DO-27) PACKAGE OUTLINE DIMENSIONS



DO-201AD(DO-27) Plastic				
Dim	Min		Max	
	Inch	mm	Inch	mm
A	1.0	25.4	-	-
B	0.285	7.2	0.375	9.5
C	0.039	1.0	0.052	1.3
D	0.190	4.8	0.210	5.3