

1A,400-600V Superfast Rectifiers

Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260°C/10 seconds



DO-15(DO-204AC)

Applications

- Small battery charger, Power supplies

Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted)				
Parameter	Symbol	MUR140	MUR160	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	400	600	V
Maximum RMS voltage	V _{RMS}	280	420	V
Maximum DC blocking voltage	V _{DC}	400	600	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 per diode	I _{FSM}	35		A
Operating junction temperature range	T _J	-55 to +150		°C
Storage temperature range	T _{STG}	-55 to +175		°C

Thermal-Mechanical Specifications (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R _{θJA}	65	°C/W
Thermal Resistance, Junction to Case	R _{θJC}	50	°C/W
Thermal Resistance, Junction to Lead	R _{θJL}	22	°C/W

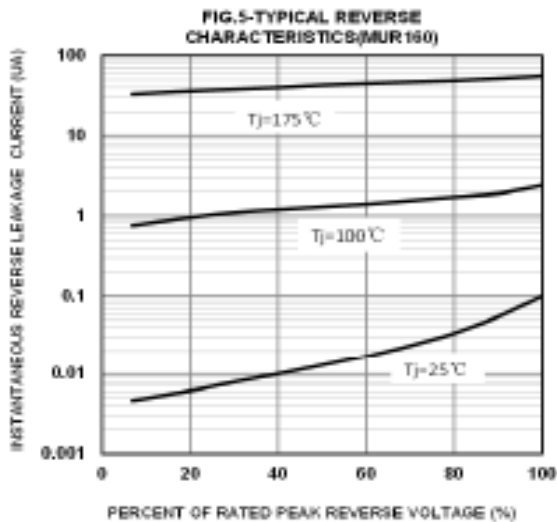
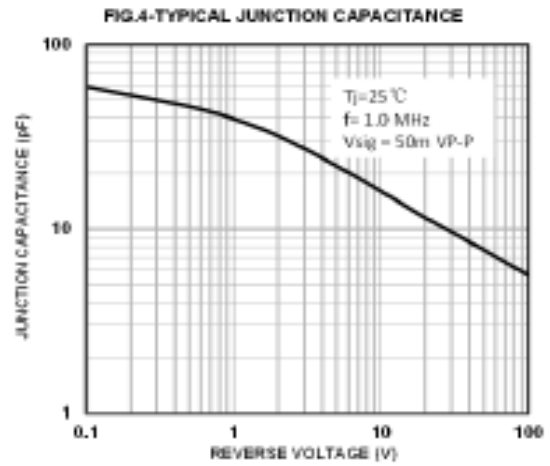
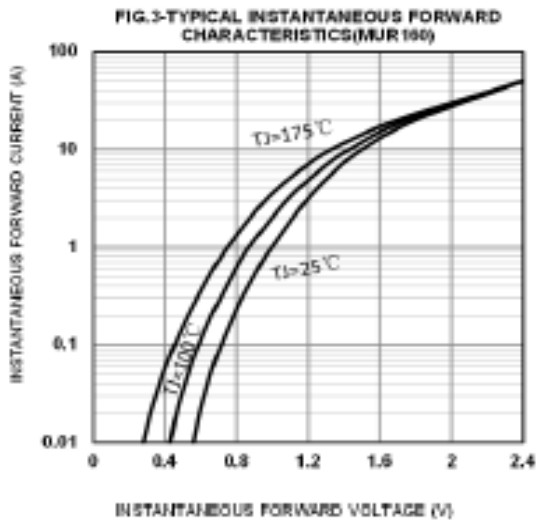
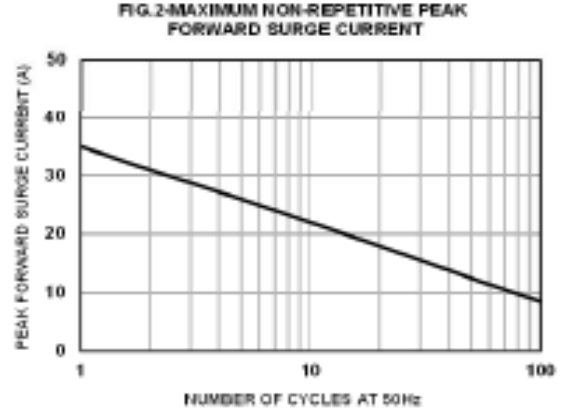
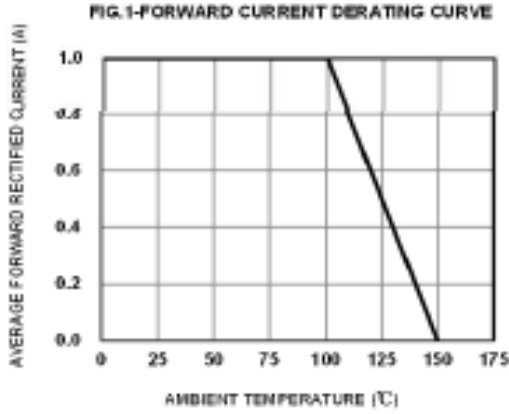
Electrical Specifications ($T_A=25^{\circ}\text{C}$ unless otherwise noted)					
Parameter	Symbol	Test Conditions	MUR140	MUR160	Unit
Forward Drop Voltage	V_F	$I_F=1\text{A}$ $T_J=25^{\circ}\text{C}$	1.25		V
		$I_F=1\text{A}$ $T_J=150^{\circ}\text{C}$	1.05		
Reverse leakage current @ V_R	I_R	$T_J=25^{\circ}\text{C}$	5		uA
		$T_J=150^{\circ}\text{C}$	150		
Typical junction capacitance	C_J	4.0 V 1 MHz	22		pF
Maximum reverse recovery time	t_{rr}	$I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$	50		nS

Note:

1. Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.

Ratings and Characteristics Curves

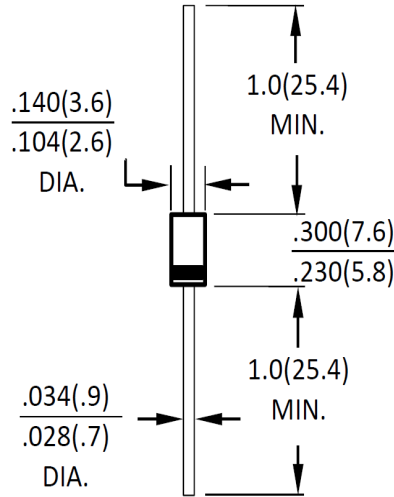
($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

in inches (millimeters)

DO-15(DO-204AC)



Dimensions in inches and (millimeters)

Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.11.13	Modify document format

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