1A,200V Superfast Rectifier

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℃/10 seconds

DO-15(DO-204AC)

Applications

- Small battery charger, Power supplies

Maximum Ratings & Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	MUR120	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	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℃ unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	65	°C /W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	50	°C /W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	22	°C /W

Electrical Specifications(T_A=25℃ unless otherwise noted)				
Parameter	**Symbol**	**Test Conditions**	**MUR120**	**Unit**
Forward Drop Voltage	V_F	I_F=1A T_J=25℃	0.875	V
		I_F=1A T_J=150℃	0.710	
Reverse leakage current @V_R	I_R	T_J =25℃	2	uA
		T_J =150℃	50	
Typical junction capacitance	C_J	4.0 V 1 MHZ	32	pF
Maximum reverse recovery time	trr	I_F=0.5A, I_R=1.0A, I_{RR}=0.25A	25	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℃ unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING CURVE

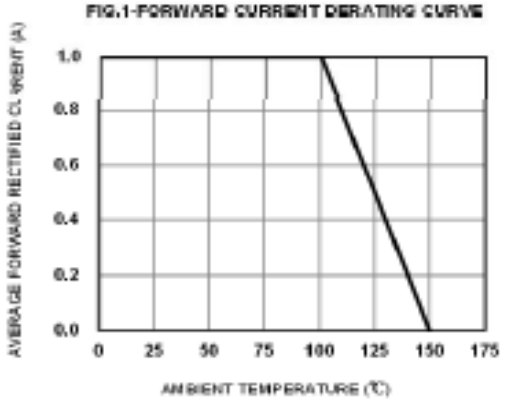


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

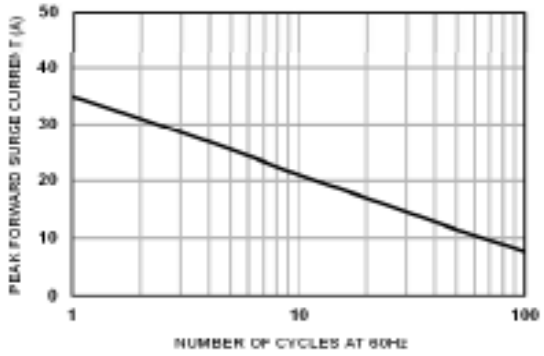


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS(MUR120)

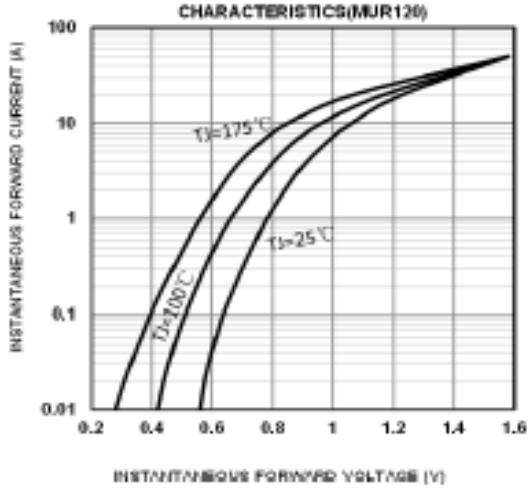


FIG.4-TYPICAL JUNCTION CAPACITANCE

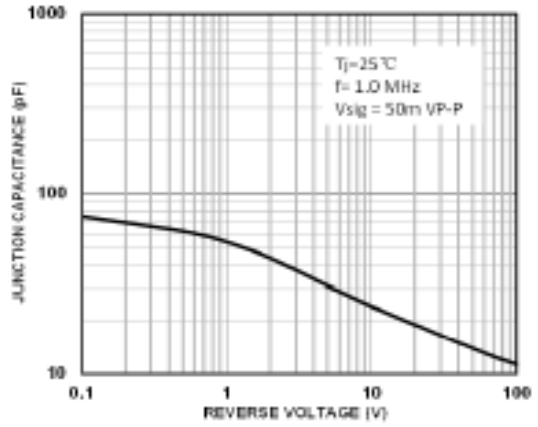
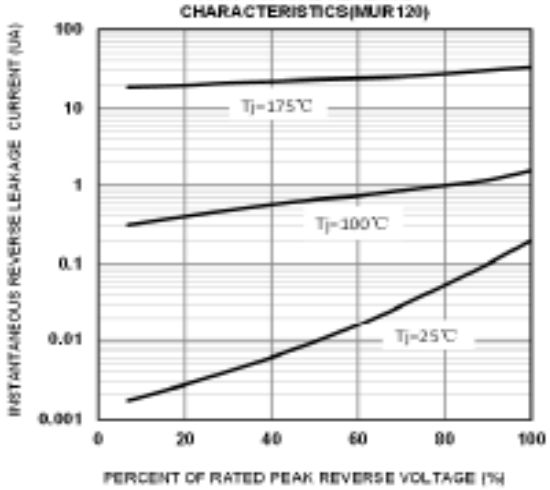


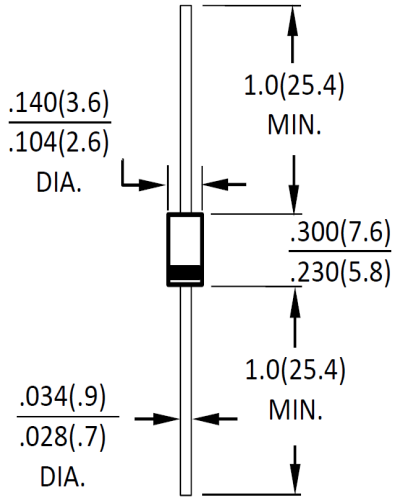
FIG.5-TYPICAL REVERSE CHARACTERISTICS(MUR120)



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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