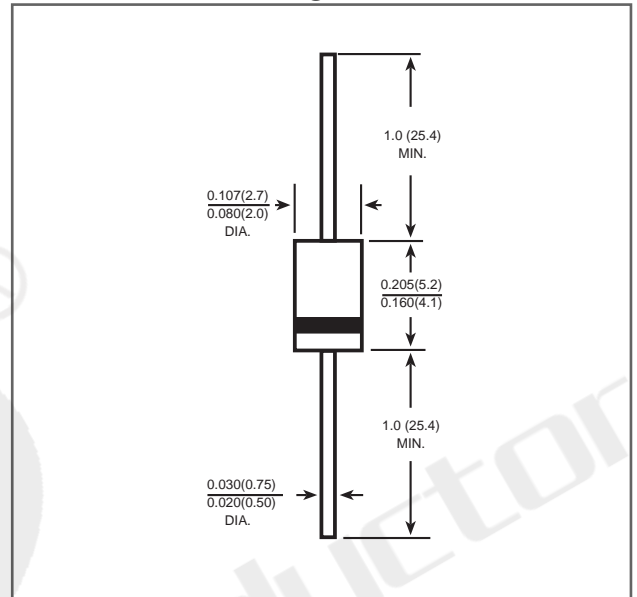




Package outline

DO-41



Dimensions in inches and (millimeters)

1.0A Leaded Type Super Fast Rectifiers - 50-600V

Features

- Axial lead type devices for through hole design
- High current capability.
- Superfast recovery time for switching mode application.
- High surge current capability.
- Glass passivated chip junction structure.
- Lead-free parts meet RoHS requirements.

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-41
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any
- Weight : Approximated 0.33 gram

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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	Ambient temperature = 50°C	I_O			1	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			30	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^{\circ}\text{C}$	I_R			10	μA
	$V_R = V_{RRM}$ $T_J = 100^{\circ}\text{C}$				100	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		60		$^{\circ}\text{C}/\text{W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		15		pF
Storage temperature		T_{STG}	-55		+150	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	T_{RR}^{*5} (nS)	Operating temperature T_J , ($^{\circ}\text{C}$)
MUR105G	50	35	50	0.95	35	-55 to +150
MUR110G	100	70	100			
MUR115G	150	105	150			
MUR120G	200	140	200			
MUR130G	300	210	300	1.25		
MUR140G	400	280	400			
MUR150G	500	350	500	1.70		
MUR160G	600	420	600			

- *1 Repetitive peak reverse voltage
- *2 RMS voltage
- *3 Continuous reverse voltage
- *4 Maximum forward voltage@ $I_F=1.0\text{A}$
- *5 Reverse recovery time, note 1

Note 1. Reverse recovery time test condition, $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$



Typical Characteristics

FIG. 1- FORWARD CURRENT DERATING CURVE

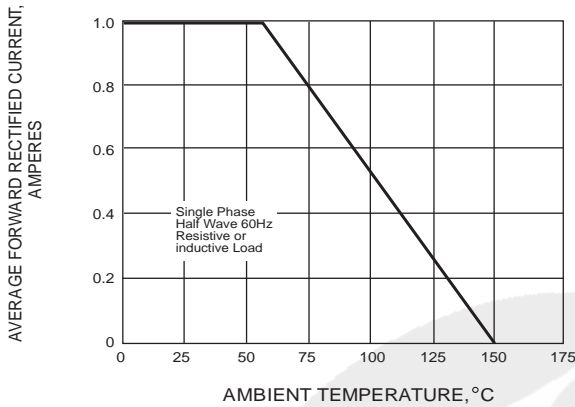


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

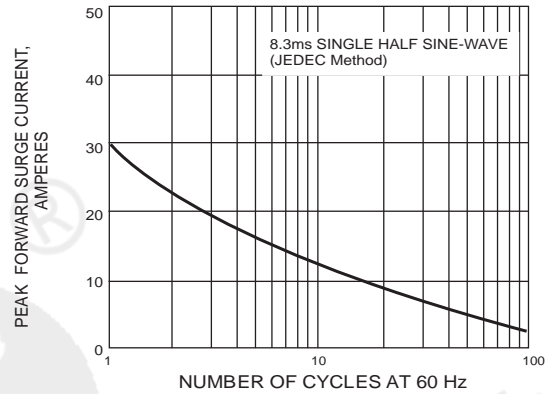


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

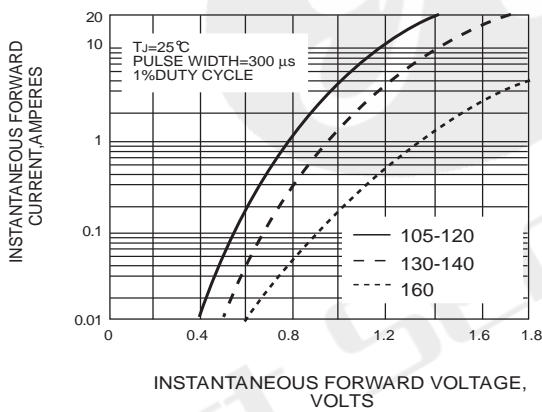


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

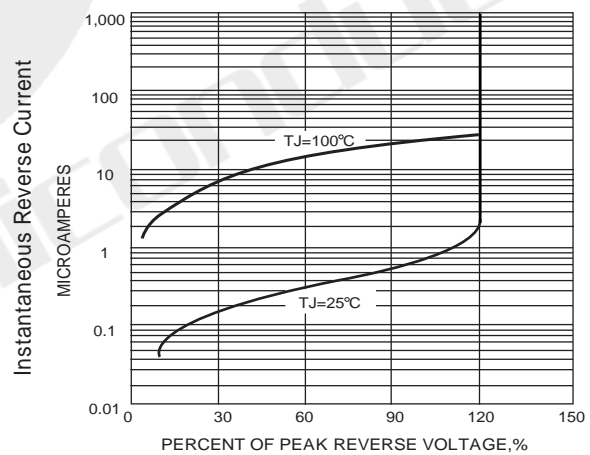


FIG. 5-TYPICAL JUNCTION CAPACITANCE

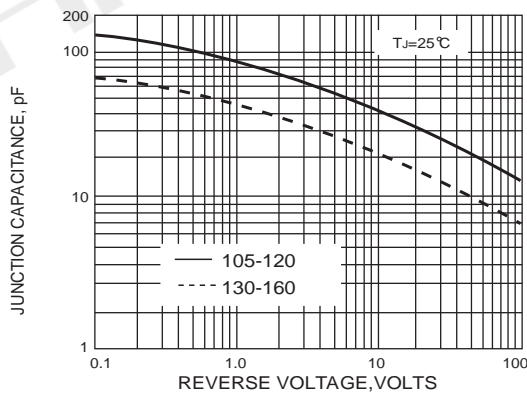


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

