

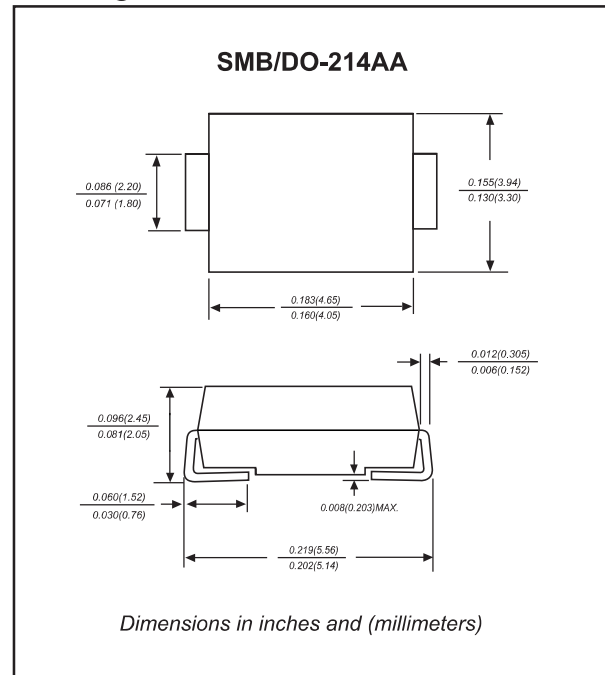
Features

- Fast switching speed.
- Low profile surface mounted application in order to optimize board space.
- Surface mount package ideally suited for automatic insertion.
- Low power loss, high efficiency.
- High forward surge current capability.
- Glass passivated chip junction.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen free parts, ex. MURS260-B-H.

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AA/SMB
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline



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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	I_o			2.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			35	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^{\circ}\text{C}$	I_R			5.0	μA
	$V_R = V_{RRM} \quad T_J = 125^{\circ}\text{C}$				50	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_j		25		pF
Storage temperature		T_{STG}	-65		+175	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	trr^{*5} (ns)	Operating temperature $T_J, (^{\circ}\text{C})$
MURS220-B	200	140	200	0.875	25	
MURS240-B	400	280	400	1.30	50	-55 to +150
MURS260-B	600	420	600			

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

- *1 Repetitive peak reverse voltage
- *2 RMS voltage
- *3 Continuous reverse voltage
- *4 Maximum forward voltage@ $I_F=2.0\text{A}$
- *5 Maximum Reverse recovery time, note 1

Rating and characteristic curves (MURS220-B THRU MURS260-B)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

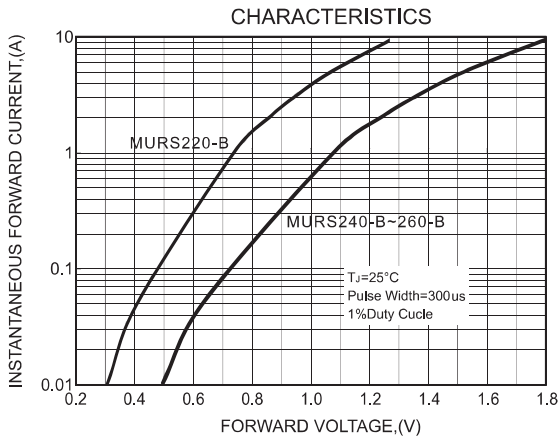


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

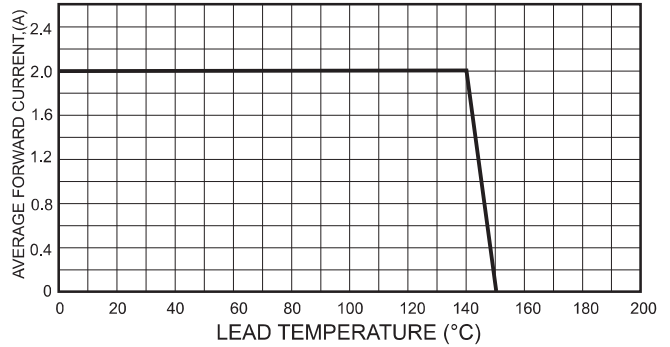


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

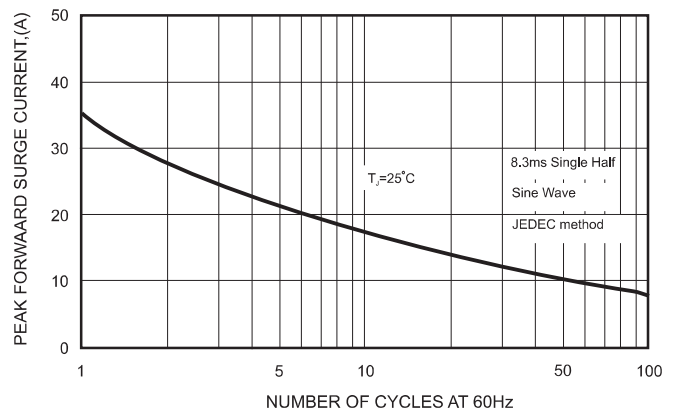
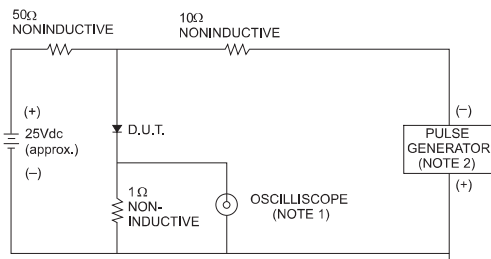


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm,22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

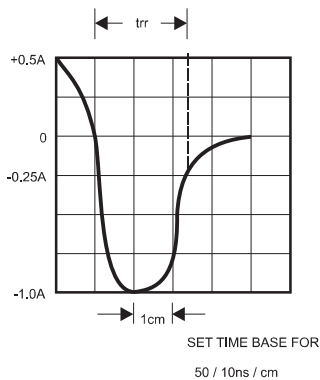
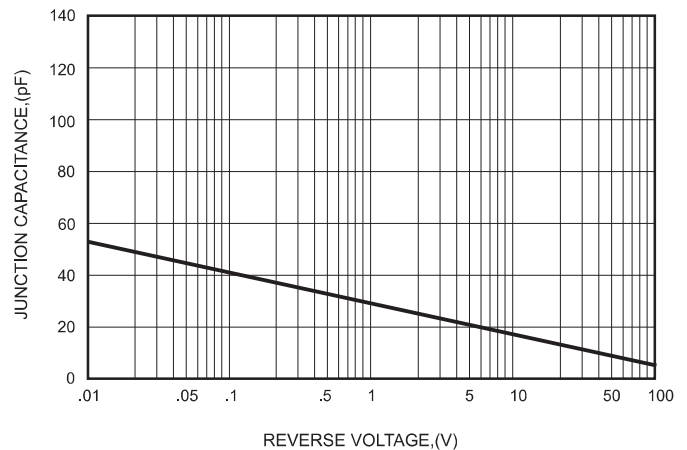




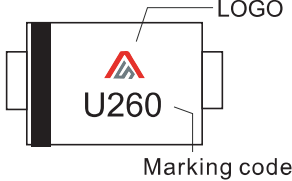
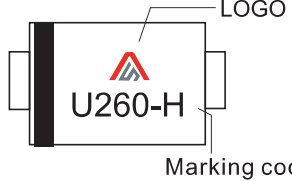
FIG.5-TYPICAL JUNCTION CAPACITANCE



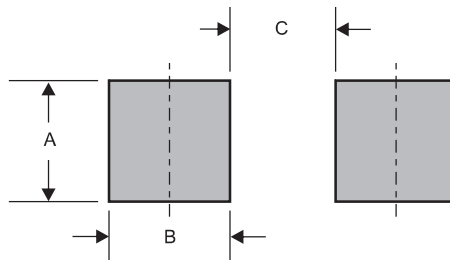
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example	
MURS220-B	U220	For Halogen Device	For Halogen-free Device
MURS240-B	U240		
MURS260-B	U260	Marking code	Marking code

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMB	0.078 (2.00)	0.059 (1.50)	0.110 (2.80)