

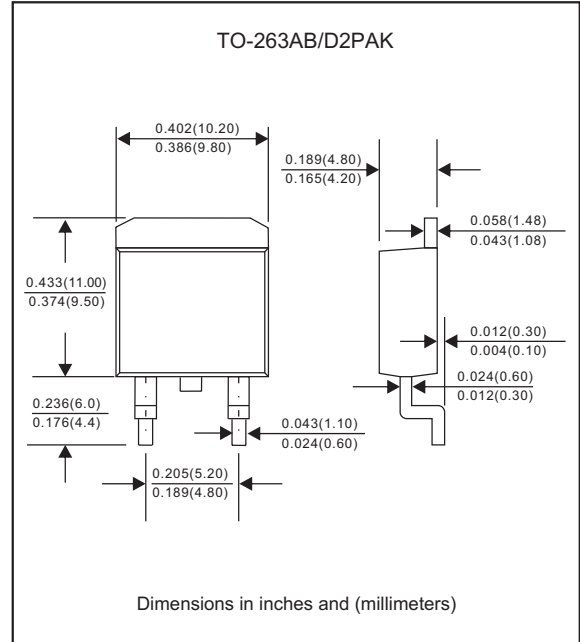
### Features

- Dual rectifier construction, positive centetap, offer 8.0A Half wave and 16.0A full wave rectification.
- High surge current capability.
- Super fast recovery time for switching mode application.
- Low power loss.
- Glass passivated chip junctions.
- Lead-free parts meet environmental standards of MIL-STD-19500/228
- Compliant to Halogen-free
- Suffix"-Q1" for AEC-Q101

### Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, TO-263AB / D2PAK
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any

### Package outline



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

PARAMETER	SYMBOLS	MUR1620CG-Q1	MUR1640CG-Q1	MUR1660CG-Q1	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	V
Maximum average forward rectified current	$I_o$	16			A
Peak forward surge current 8.3ms single half sine-wave(JEDEC method)	$I_{FSM}$	110			A
Operating junction temperature range	$T_J$	-55 to +150			$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150			$^{\circ}\text{C}$

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

PARAMETER	SYMBOLS	MUR1620CG-Q1	MUR1640CG-Q1	MUR1660CG-Q1	UNIT
Maximum forward voltage per leg at $I_F=8\text{A}$	$V_F$	1.00	1.30	1.70	V
Maximum reverse recovery time per leg (Note 1)	$t_{rr}$	35	50		ns
Maximum DC reverse current at $T_J=25^{\circ}\text{C}$ at rated DC blocking voltage per leg at $T_J=125^{\circ}\text{C}$	$I_R$	5.0 500			$\mu\text{A}$ $\mu\text{A}$

### Thermal Characteristics

PARAMETER	SYMBOLS	MUR1620CG-Q1	MUR1640CG-Q1	MUR1660CG-Q1	UNIT
Typical thermal resistance junction to case per leg	$R_{\theta JC}$	4.0			$^{\circ}\text{C}/\text{W}$

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

### Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

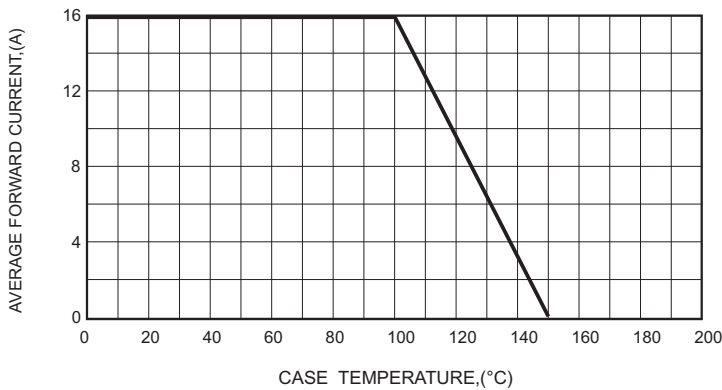


FIG.2-TYPICAL FORWARD CHARACTERISTICS

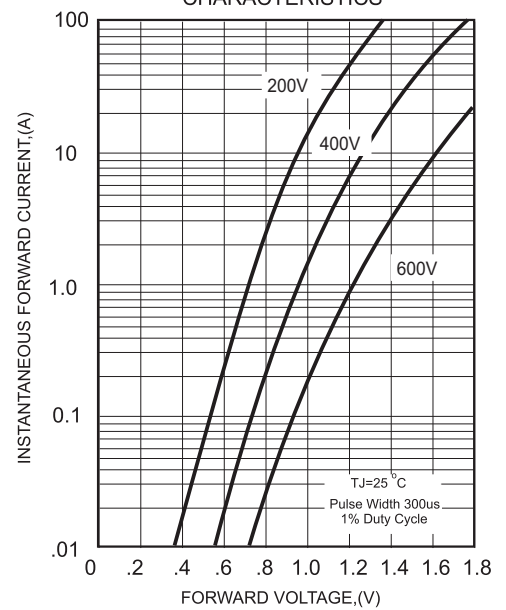


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

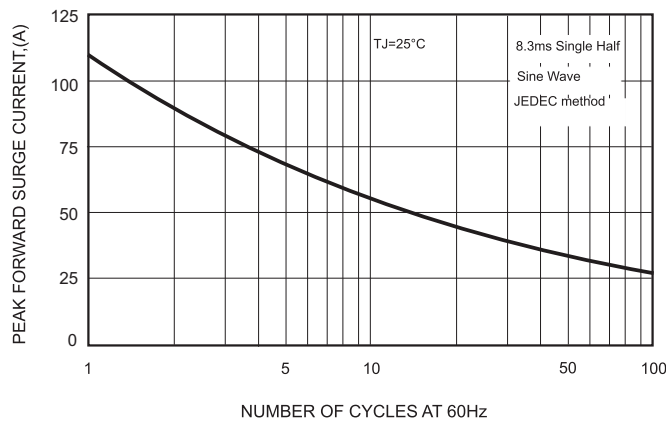


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

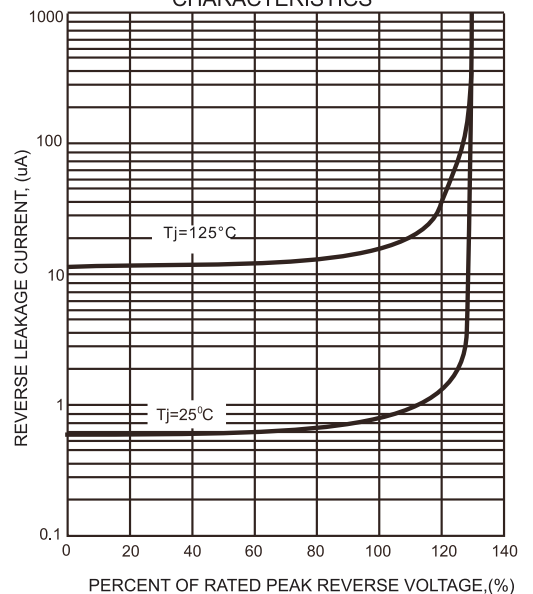
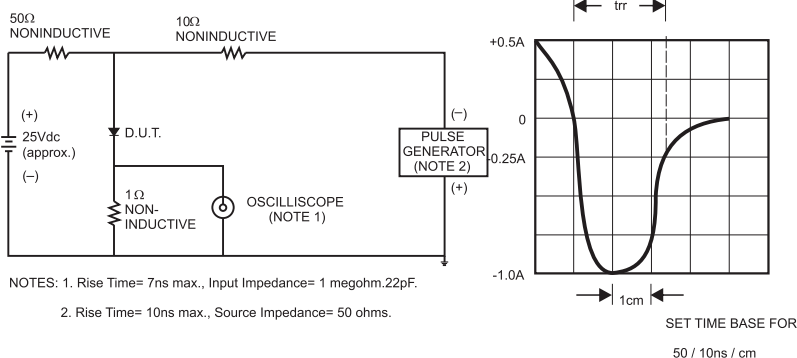
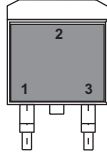
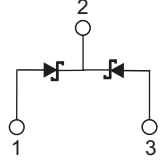


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



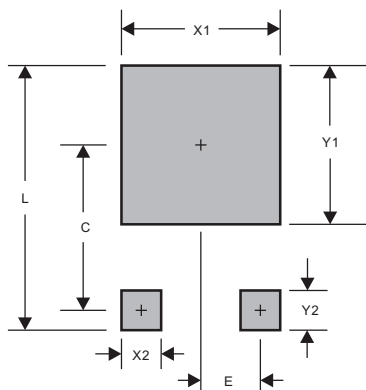
### Pinning information

Pin	Simplified outline	Symbol
Pin1 anode Pin2 cathode Pin3 anode		

### Marking

Type number	Marking code
MUR1620CG-Q1	MUR1620CG
MUR1640CG-Q1	MUR1640CG
MUR1660CG-Q1	MUR1660CG

### Suggested solder pad layout



PACKAGE	D2PAK
C	0.374(9.50)
E	0.098(2.50)
L	0.665(16.90)
X1	0.425(10.80)
X2	0.071(1.80)
Y1	0.449(11.40)
Y2	0.138(3.50)

Dimensions in inches and (millimeters)