MURA1J / MURB1J / MUR160K

SUPERFAST RECOVERY RECTIFIERS

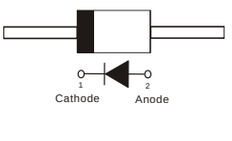
Voltage	600 V	Current	1 A

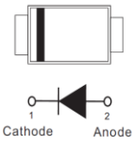
Features

- Superfast recovery times-epitaxial construction
- Low forward voltage, high current capability
- Hermetically sealed.
- Low leakage
- High surge capacity
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard (SMA)(SMB)

Mechanical Data

- Case: Molded plastic, SMA, SMB, DO-41
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end
- SMA Approx. Weight: 0.0239 ounces, 0.068 grams
- SMB Approx. Weight: 0.0032 ounces, 0.092 grams
- DO-41 Approx. Weight: 0.012 ounces, 0.034 grams
- Marking: Part number





MUR160K DO-41



MURA1J SMA



MURB1J SMB



Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum rms voltage	V_{RMS}	420	V
Maximum dc blocking voltage	V_R	600	V
Maximum average forward current	$I_{F(AV)}$	1	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30	A
Maximum forward voltage at 1A	V_F	1.25	V
Maximum dc reverse current at rated dc blocking voltage	I_R	5	μA
Operating and storage temperature range	T_J, T_{STG}	-55 to +175	°C

MURA1J / MURB1J / MUR160K

Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum reverse recovery time	(Note 4)	T_{RR}	50	ns
Typical thermal resistance	SMA(Note 3)	$R_{\theta JA}$	150	°C/W
	SMB(Note 3)	$R_{\theta JA}$	135	
	SMA(Note 1)	$R_{\theta JC}$	25	
	SMB(Note 1)	$R_{\theta JC}$	20	
	DO-41(Note 2)	$R_{\theta JL}$	55	

Note : 1. Mounted on a FR4 PCB, single-sided copper, with 100cm^2 copper pad area

2.The testing condition of the thermal resistance (junction to lead) is based on 10 mm lead length between two 10cm x 10cm FR4 PCB single-sided copper pad

3. Mounted on a FR4 PCB, single-sided copper, mini pad

4. Reverse Recovery Test Conditions : I_F=0.5A, I_R=1A, Recover to 0.25A

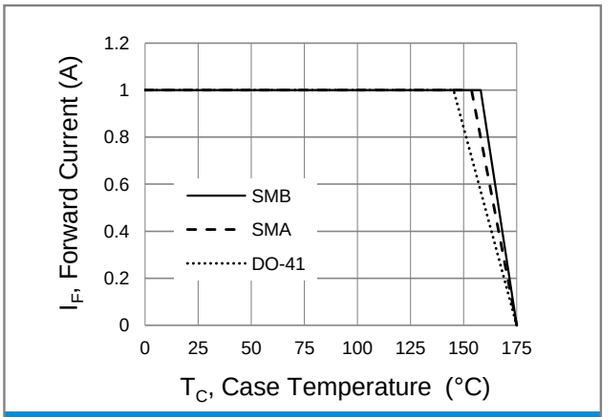


Fig.1 Forward Current Derating Curve

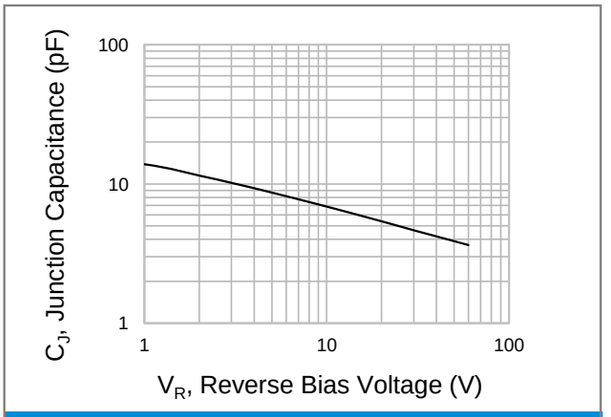


Fig.2 Typical Junction Capacitance

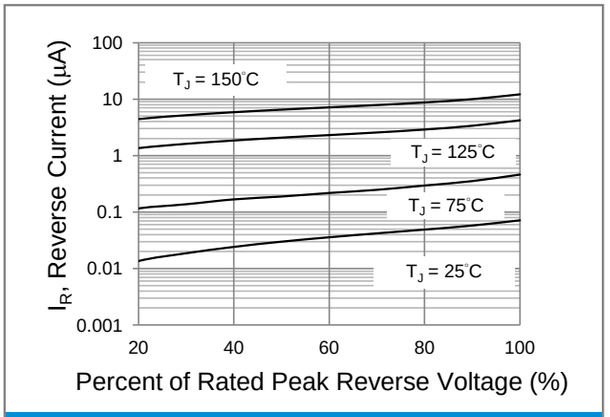


Fig.3 Typical Reverse Characteristics

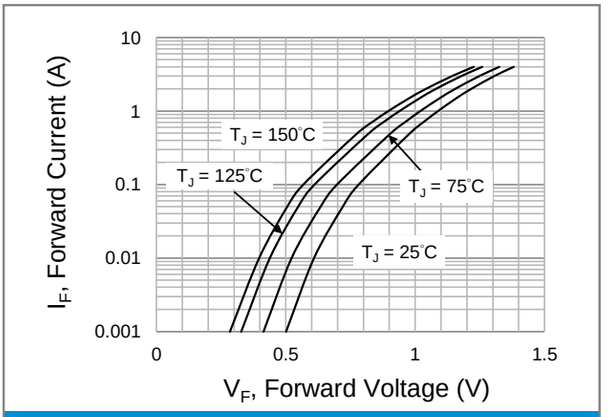


Fig.4 Typical Forward Characteristics

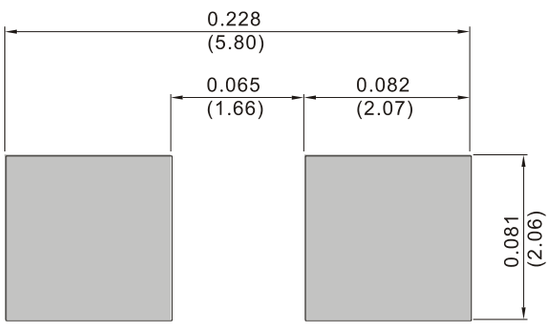
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PART NO PACKING CODE VERSION

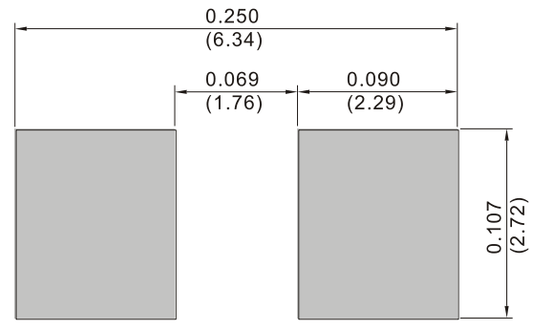
Part No Packing Code	Package Type	Packing type	Marking	Version
MUR160K_AY_00001	DO-41	5K pcs/ TB 52mm	MUR160K	Halogen free
MUR160K_AY_10001	DO-41	5K pcs/ TB 52mm	MUR160K	RoHS
MURA1J_R1_00001	SMA	1.8K pcs / 7" reel	MURA1J	Halogen free
MURB1J_R1_00001	SMB	0.8K pcs / 7" reel	MURB1J	Halogen free

MOUNTING PAD LAYOUT

SMA / DO-214AC Unit：inch(mm)



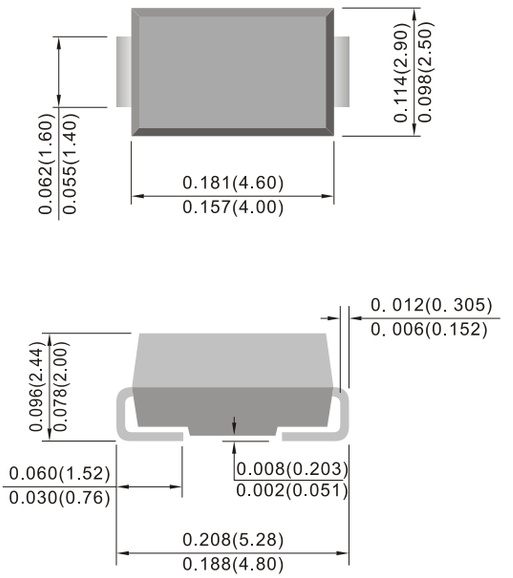
SMB / DO-214AA Unit：inch(mm)



MURA1J / MURB1J / MUR160K

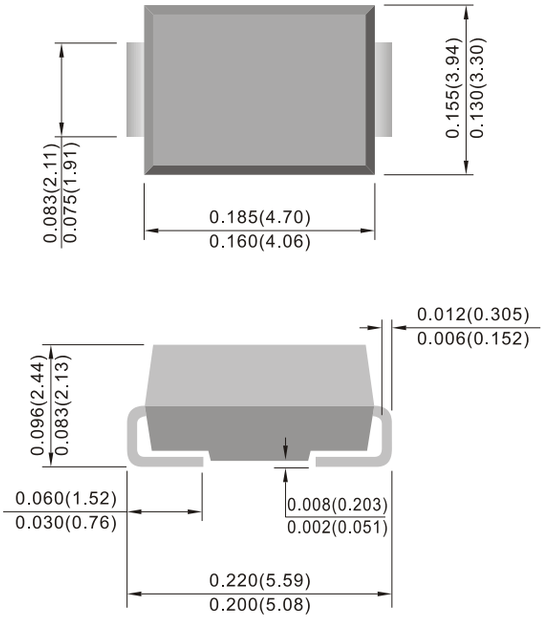
SMA / DO-214AC

Unit : inch(mm)



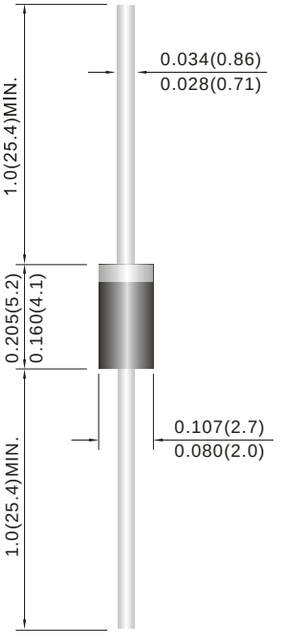
SMB / DO-214AA

Unit : inch(mm)



DO-41

Unit : inch(mm)



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