



## **MURA1J / MURB1J / MUR160K**

### SUPERFAST RECOVERY RECTIFIERS

Voltage

600 V

Current

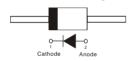
1 A

#### **Features**

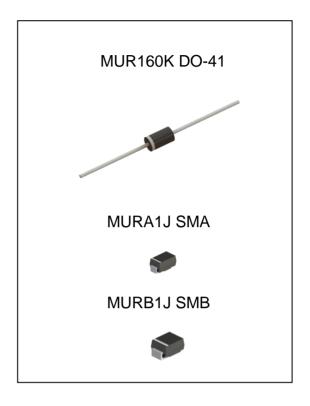
- Superfast recovery times-epitaxial construction
- Low forward voltage, high current capability
- Hermetically sealed.
- Low leakage
- High surge capacity
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Lead free in compliance 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







## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	Vrrm	600	V
Maximum rms voltage	VRMS	420	V
Maximum dc blocking voltage	VR	600	V
Maximum average forward current	<b>I</b> F(AV)	1	А
Peak forward surge current : 8.3ms single half sine- wave superimposed on rated load	Ifsm	30	А
Maximum forward voltage at 1A	VF	1.25	V
Maximum dc reverse current at rated dc blocking voltage	lr	5	μΑ
Operating and storage temperature range	TJ, Tsтg	-55 to +175	°C





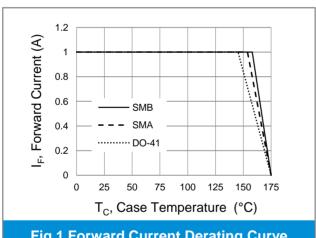
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Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

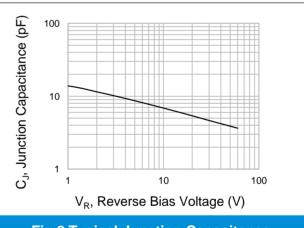
PARAMETER		SYMBOL	LIMIT	UNIT
Maximum reverse recovery time	(Note 4)	Trr	50	ns
Typical thermal resistance	SMA(Note 3)	$R_{\theta JA}$	150	
	SMB(Note 3)	$R_{\theta JA}$	135	
	SMA(Note 1)	$R_{ heta JC}$	25	°C/W
	SMB(Note 1)	$R_{ heta JC}$	20	
	DO-41(Note 2)	$R_{\theta JL}$	55	

Note: 1. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> 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: IF=0.5A, IR=1A, Recover to 0.25A



**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

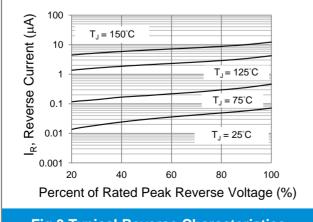


Fig.3 Typical Reverse Characteristics

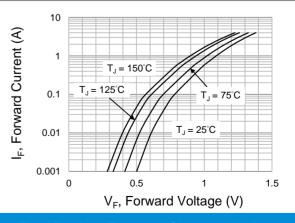


Fig.4 Typical Forward Characteristics



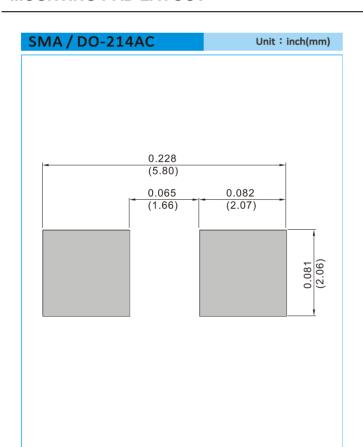


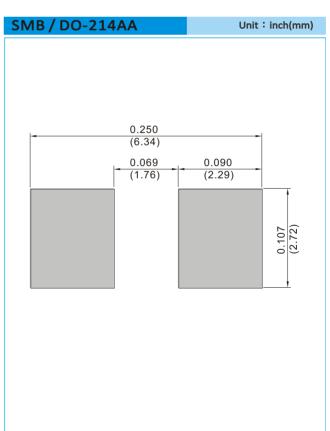
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### PART NO PACKING CODE VERSION

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**

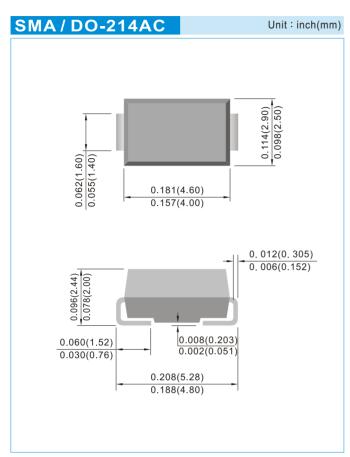


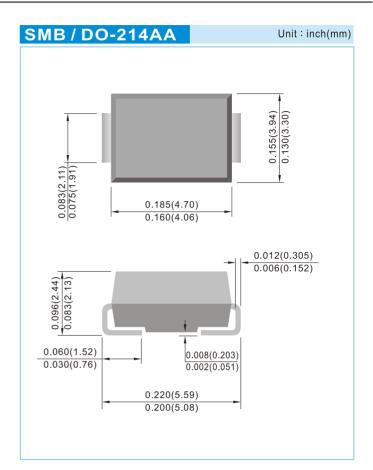


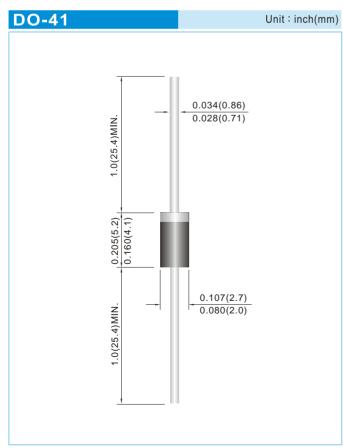




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