

Pb Free Plating Product

MURA120T3G/MURA140T3G/MURA160T3G



1.0 Ampere Surface Mount Type Ultra Fast Recovery Rectifier Diode

<p>Features</p> <ul style="list-style-type: none"> ※ ThinkiSemi latest&matured process FRD/FRED ※ Fast switching for high efficiency ※ Low forward voltage drop ※ High current capability ※ Low reverse leakage current ※ High surge current capability <p>Application</p> <ul style="list-style-type: none"> ※ Automotive Inverters and Solar Inverters ※ Car Audio Amplifiers and Sound Device Systems ※ Plating Power Supply, Motor Control, UPS and SMPS etc. <p>Mechanical Data</p> <ul style="list-style-type: none"> ※ Case: Open Metal Package TO-220AB/TO-220-3L ※ Epoxy: UL 94V-0 rate flame retardant ※ Terminals: Solderable per MIL-STD-202 method 208 ※ Polarity: As marked on diode body ※ Mounting position: Any ※ Weight: 2.2 gram approximately 	<p>SMA/DO-214AC Unit:inch(mm)</p>
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	MURA120T3G	MURA140T3G	MURA160T3G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	200	400	600	V
Maximum RMS Voltage	VRMS	140	280	420	V
Maximum DC Blocking Voltage	VDC	200	400	600	V
Maximum Average Forward Rectified Current Tc=175°C (Total Device 1.0A(Minimum))	IF(AV)	1.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)(Per Diode/Per Leg)	IFSM	50			A
Maximum Instantaneous Forward Voltage @1.0A (Per Diode/Per Leg)	VF	0.700-0.875	1.000-1.250	1.250-1.500	V
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	1.0 5.0			μA μA
Maximum Reverse Recovery Time (Note1)	Trr	25-35			nS
Typical Junction Capacitance (Note 2)	CJ	10			pF
Typical Thermal Resistance (Note 3)	RθJC	20			°C/W
Operating Junction and Storage Temperature Range	TJ,TSTG	-55 to +175			°C

Note:(1)Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.

Note:(2)Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

Note:(3)Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

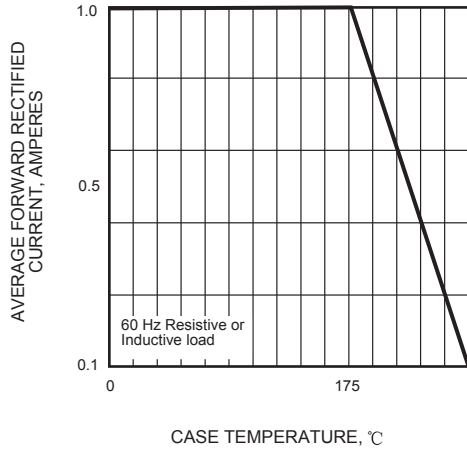


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

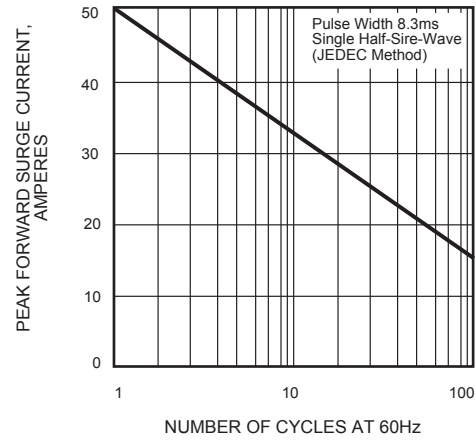


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

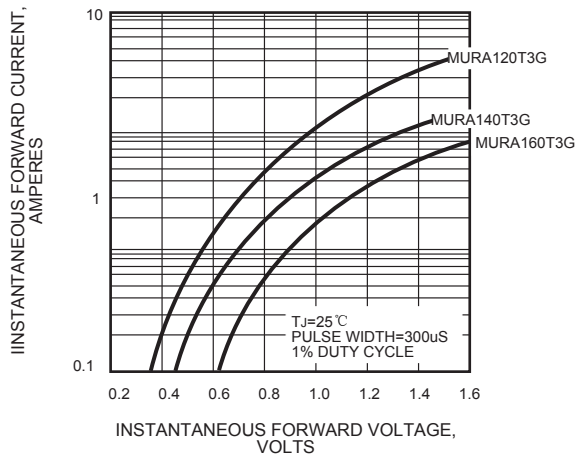


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

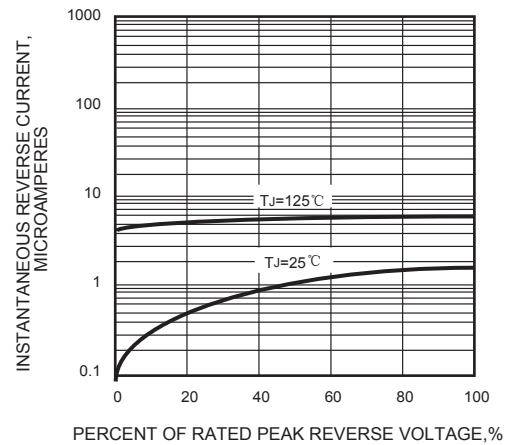


FIG.5 - TYPICAL JUNCTION CAPACITANCE

