

ULTRAFAST RECOVERY RECTIFIER
VOLTAGE 50 to 600 Volts CURRENT 30 Ampere

FEATURES

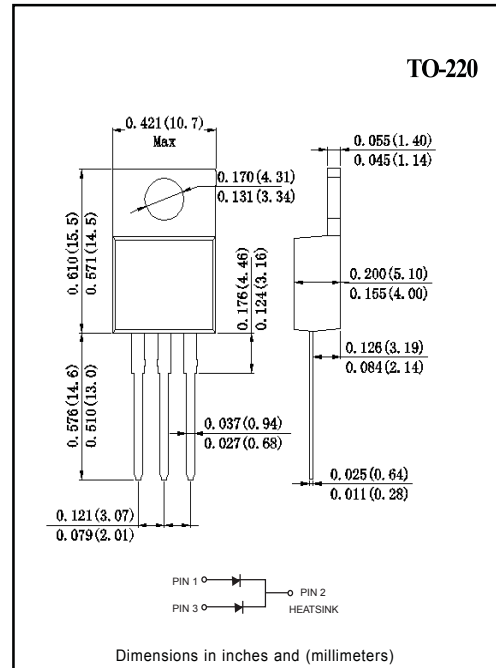
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	MUR3005C	MUR3010C	MUR3020C	MUR3040C	MUR3050C	MUR3060C	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	500	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	350	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	500	600	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	30						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	250						Amps
Typical Current Squared Time	I^2t	259.38						A ² S
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.5						°C/W
Operating Temperature Range	T_J	-55 to +150						°C
Storage Temperature Range	T_{STG}	-55 to +150						°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MUR3005C	MUR3010C	MUR3020C	MUR3040C	MUR3050C	MUR3060C	UNITS	
Maximum Instantaneous Forward Voltage at 15 A DC	V_F	1.0			1.3	1.7		Volts	
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	@T _A = 25 °C	10						uA
		@T _A =125 °C	500						uA
Maximum Reverse Recovery Time (Note 3)	t_{rr}	35						nSec	

- NOTES : 1. Thermal Resistance : Heat-sink mounted.
2. Suffix "A" = Common Anode.
3. Test Conditions: IF= 0.5A, IR= -1.0A, IRR= -0.25A.

RATING AND CHARACTERISTICS CURVES (MUR3005C THRU MUR3060C)

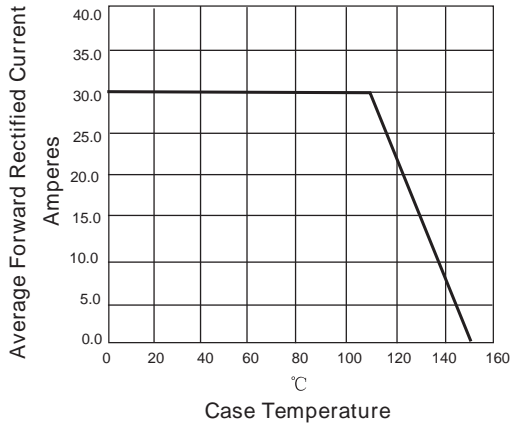


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

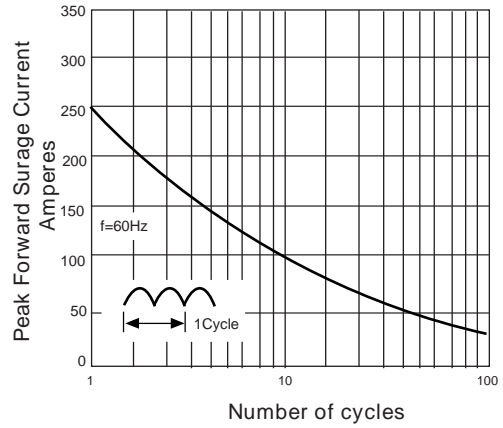


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

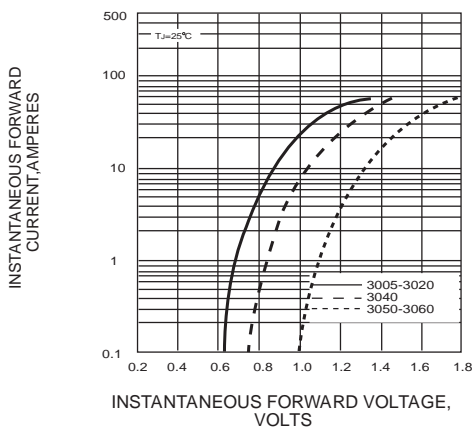


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

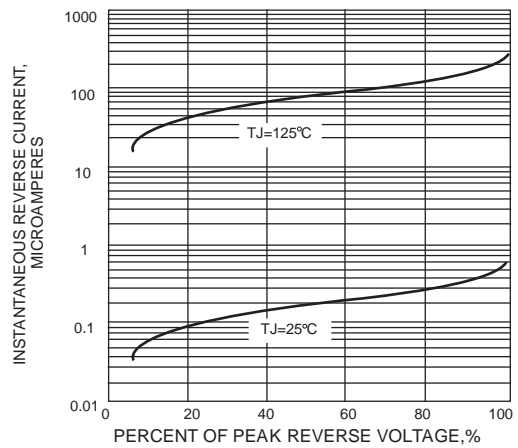
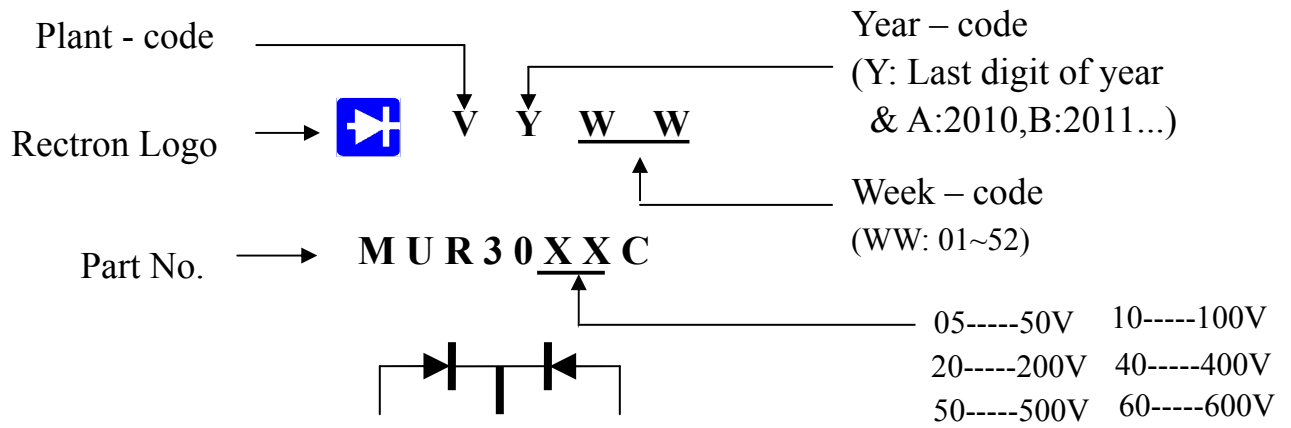


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
(I)TO-220/TO-220(A)	-C	2,000	550*140*92	572*308*120	4,000	11.80

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