

SUPER FAST RECTIFIERS

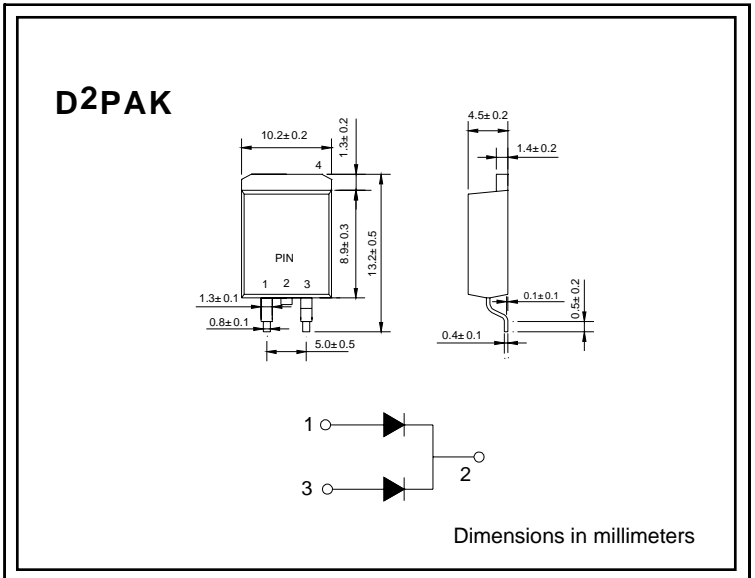
VOLTAGE RANGE: 50 --- 600 V
CURRENT: 20 A

FEATURES

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC D²PAK, molded plastic
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.087 ounces, 2.2 grams
- ◇ Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

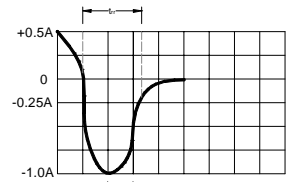
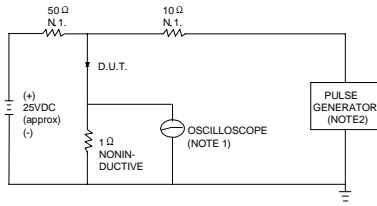
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		MUR 2005BC	MUR 2010BC	MUR 2015BC	MUR 2020BC	MUR 2040BC	MUR 2060BC	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	600	V
Maximum average forward rectified current @ $T_C = 95^\circ C$	$I_{F(AV)}$	20						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ C$	I_{FSM}	125						A
Maximum instantaneous forward voltage @ 10A	V_F	0.975				1.3	1.5	V
Maximum reverse current @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 150^\circ C$	I_R	5.0				10.0		μA
		250				500		
Maximum reverse recovery time (Note1)	t_{rr}	25				50		ns
Operating junction temperature range	T_J	- 55 ----- + 150						$^\circ C$
Storage temperature range	T_{STG}	- 55 ----- + 150						$^\circ C$

NOTE: 1. Measured with $I_F = 0.5A$, $I_R = 1A$, $t_{rr} = 0.25A$.

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FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



SET TIME BASE FOR 10/20 ns/cm

NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.
 2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

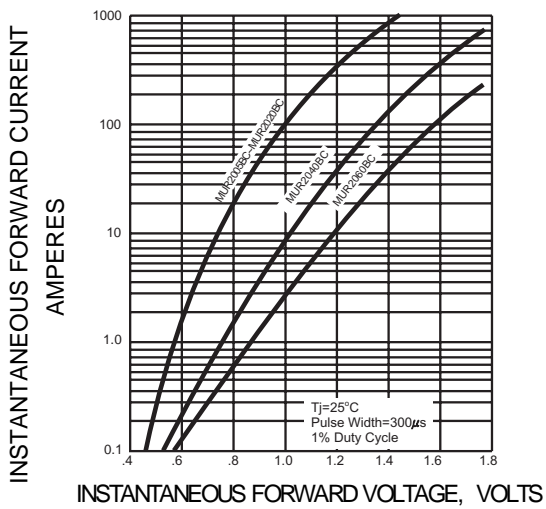


FIG.3 – PEAK FORWARD SURGE CURRENT

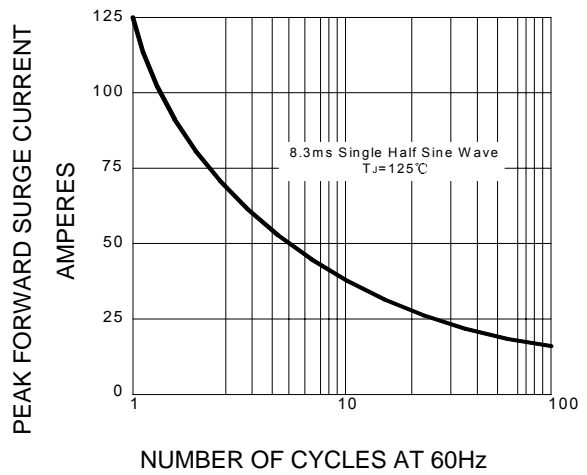


FIG.4-FORWARD DERATING CURVE

