

Pb Free Plating Product

MBRS6040CT



2*30Amperes/40Volts Dual Common Cathode Surface Mount Schottky Rectifiers

Features

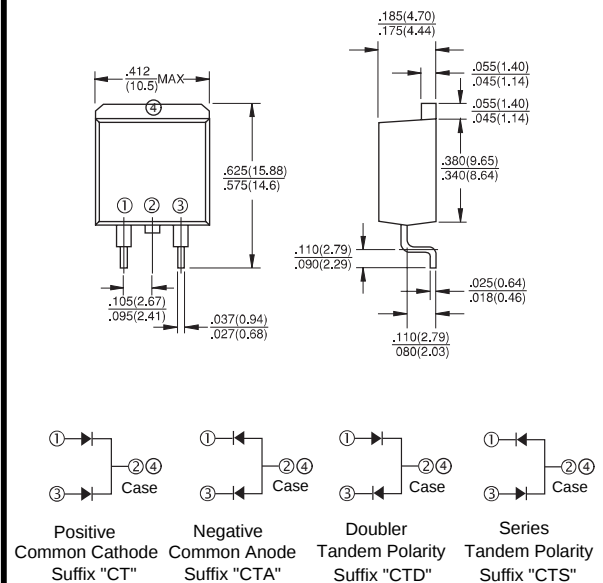
- ◇ For surface mounted application
- ◇ Plastic material used carries Underwriters Laboratory Classifications 94V-0
- ◇ Metal silicon junction, majority carrier conduction
- ◇ Low power loss, high efficiency
- ◇ High current capability, low forward voltage drop
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◇ Guardring for overvoltage protection
- ◇ High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

- ◇ Cases: JEDEC D²PAK /TO-263-2L molded plastic
- ◇ Terminals: Pure tin plated, lead free. solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Mounting position: Any
- ◇ Mounting torque: 5 in. - lbs. max
- ◇ Weight: 0.06 ounce, 1.70 gram approximately

D2PAK/TO-263AB

Unit:inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	MBRS6040CT	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	40	V
Maximum RMS voltage	V _{RMS}	28	V
Maximum DC blocking voltage	V _{DC}	40	V
Maximum average forward rectified current	I _{F(AV)}	60	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	250	A
Maximum instantaneous forward voltage (Note 1) I _F = 30A, T _J =25°C I _F = 30A, T _J =125°C I _F = 60A, T _J =25°C I _F = 60A, T _J =125°C	V _F	0.75 0.70 1.05 0.98	V
Maximum reverse current @ rated V _R T _J =25°C T _J =125°C	I _R	0.1 40	mA
Voltage rate of change (Rated V _R)	dV/dt	10000	V/μs
Typical thermal resistance	R _{θJC}	1	°C/W
Operating junction temperature range	T _J	- 55 to +150	°C
Storage temperature range	T _{STG}	- 55 to +150	°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

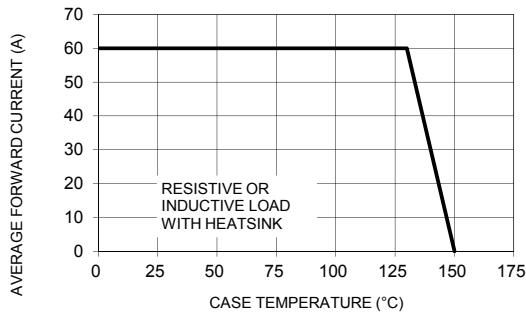


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

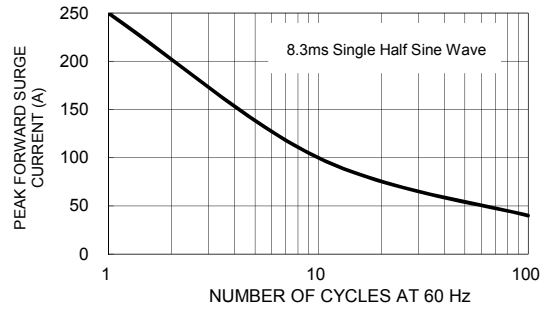


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

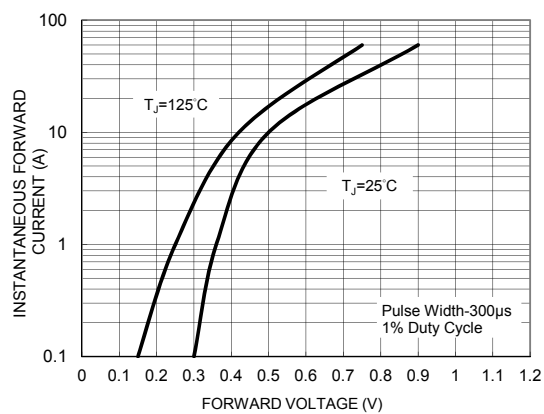


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

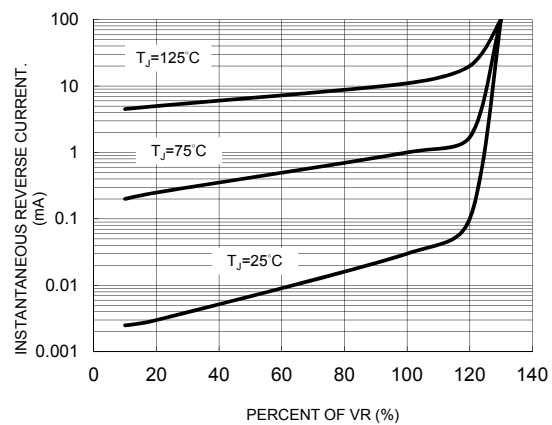


FIG. 5 TYPICAL JUNCTION CAPACITANCE

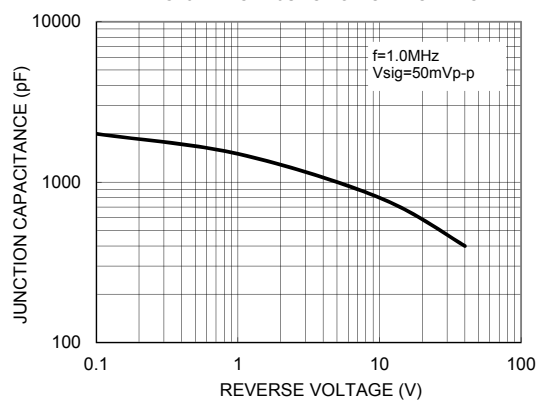


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

