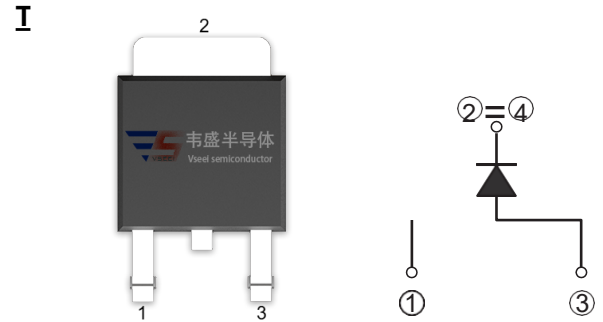


FAST RECOVERY EPI DIODES

FEATURES

- ◆
- ◆
- ◆
- ◆ reliability



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	MURD520S	MURD540S	MURD560S	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum average forward rectified current	$I_{(AV)}$	5			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50			A
Maximum instantaneous forward voltage at 5.0A DC	V_F	1.0	1.30	1.60	V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	I_R	10 100			μA
Typical junction capacitance (NOTE 1)	C_J	45			pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50			$^{\circ}C/W$
Maximum Reverse Recovery Time(Note3)	T_{rr}	35			ns
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +175			$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case.

3. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

Fig.1 Maximum Average Forward Current Rating

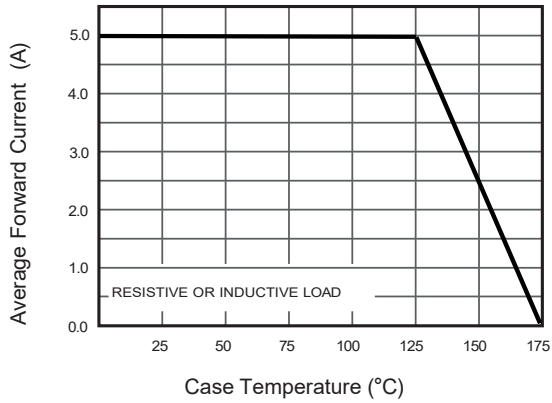


Fig.2 Typical Reverse Characteristics

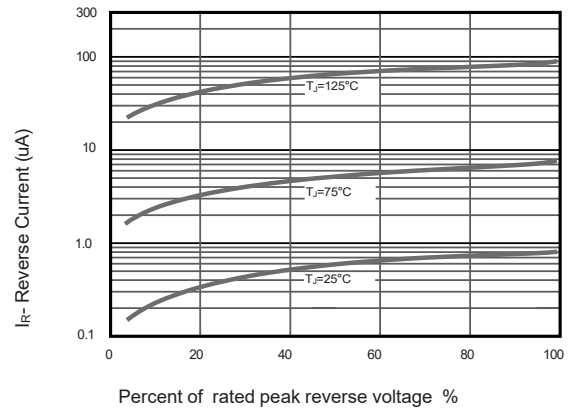


Fig.3 Typical Forward Characteristics

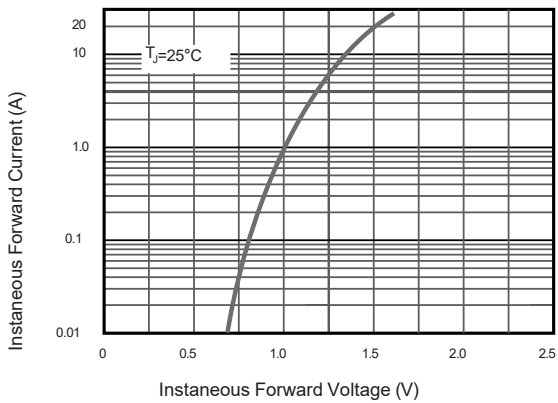


Fig.4 Typical Junction Capacitance

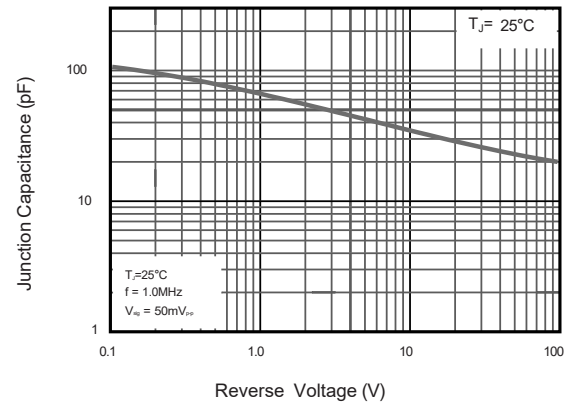


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

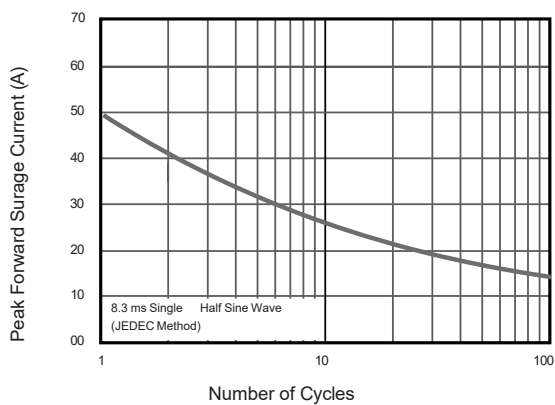
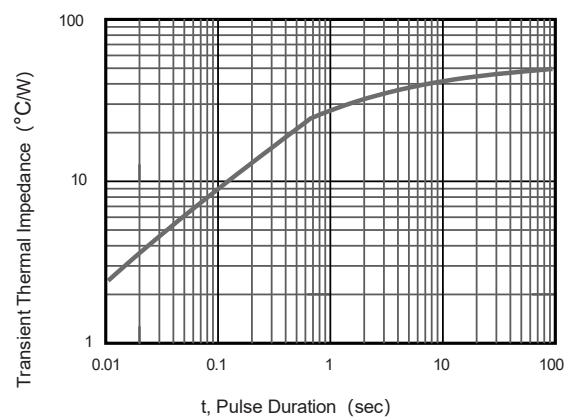


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.