



Features

- Types up to 1000 V V_{RRM}
- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Reliable, low cost construction utilizing molded plastic technique

KBJ Package



Maximum ratings, at $T_J = 25\text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	KBJ2506G	KBJ2508G	KBJ2510G	Unit
Repetitive peak reverse voltage	V_{RRM}		600	800	1000	V
RMS reverse voltage	V_{RMS}		420	560	700	V
DC blocking voltage	V_{DC}		600	800	1000	V
Continuous forward current	I_F	$T_C \leq 110\text{ }^\circ\text{C}$, with heatsink	25	25	25	A
		$T_C \leq 110\text{ }^\circ\text{C}$, without heatsink	4.2	4.2	4.2	
Surge non-repetitive forward current, Half Sine Wave	I_{FSM}	$T_C = 25\text{ }^\circ\text{C}$, $t_b = 8.3\text{ ms}$	350	350	350	A
Operating temperature	T_J		-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

Electrical characteristics, at $T_J = 25\text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	KBJ2506G	KBJ2508G	KBJ2510G	Unit
Diode forward voltage	V_F	$I_F = 12.5\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$	1.05	1.05	1.05	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_J = 25\text{ }^\circ\text{C}$	10	10	10	μA
		$V_R = 50\text{ V}$, $T_J = 125\text{ }^\circ\text{C}$	500	500	500	

Thermal characteristics

Parameter	Symbol	Conditions	KBJ2506G	KBJ2508G	KBJ2510G	Unit
Thermal resistance, junction - case	$R_{\theta JA}$		0.6	0.6	0.6	$^\circ\text{C/W}$



FIG. 1 - FORWARD CURRENT DERATING CURVE

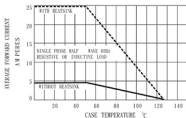


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

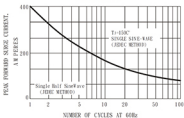


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

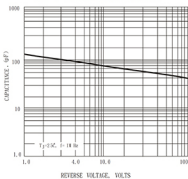


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

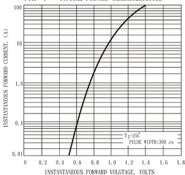


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

