

Silicon Super Fast Recovery Diode

$V_{RRM} = 50\text{ V} - 600\text{ V}$

$I_F = 300\text{ A}$

Features

- High Surge Capability
- Types up to 600 V V_{RRM}

TO-244AB Package



Maximum ratings, at $T_j = 25\text{ °C}$, unless otherwise specified ("R" devices have leads reversed)

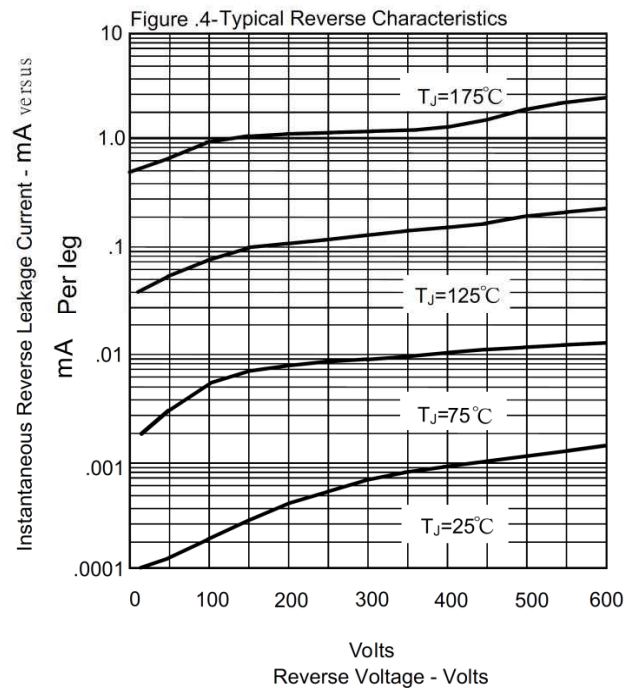
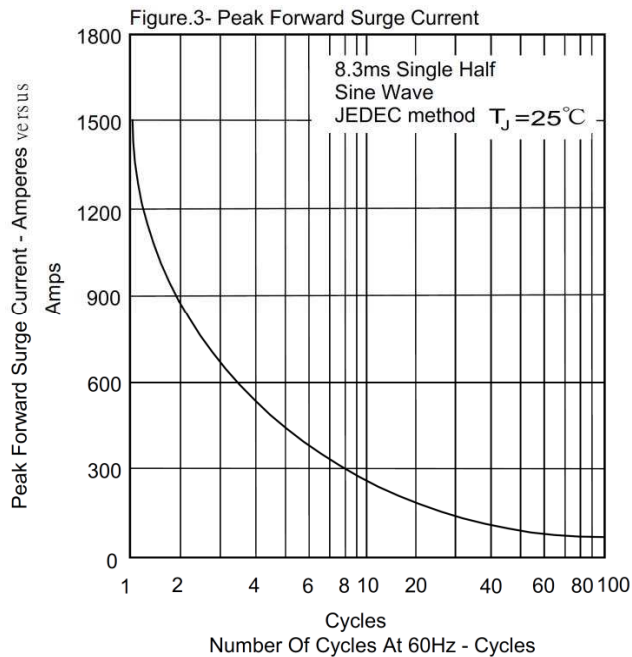
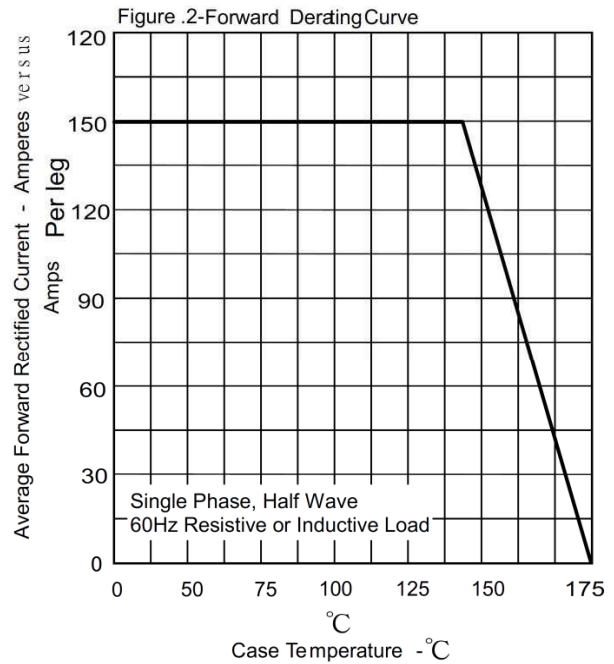
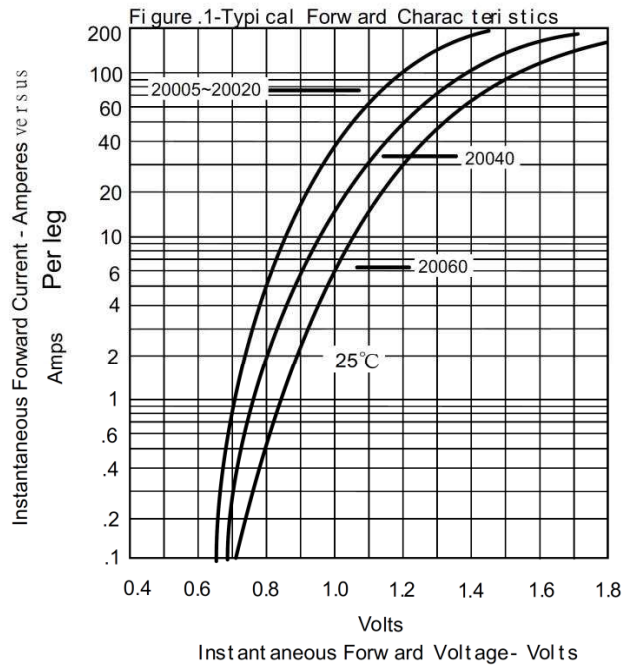
Parameter	Symbol	Conditions	MURF30040 (R)	MURF30060 (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		400	600	V
RMS reverse voltage	V_{RMS}		280	420	V
DC blocking voltage	V_{DC}		400	600	V
Continuous forward current	I_F	$T_C \leq 140\text{ °C}$	300	300	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	1500	1500	A
Operating temperature	T_j		-40 to 175	-40 to 175	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	°C

Electrical characteristics, at $T_j = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	MURF30040 (R)	MURF30060 (R)	Unit
Diode forward voltage	V_F	$I_F = 150\text{ A}$, $T_j = 25\text{ °C}$	1.5	1.7	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ °C}$	25	25	μA
		$V_R = 50\text{ V}$, $T_j = 125\text{ °C}$	1	1	mA

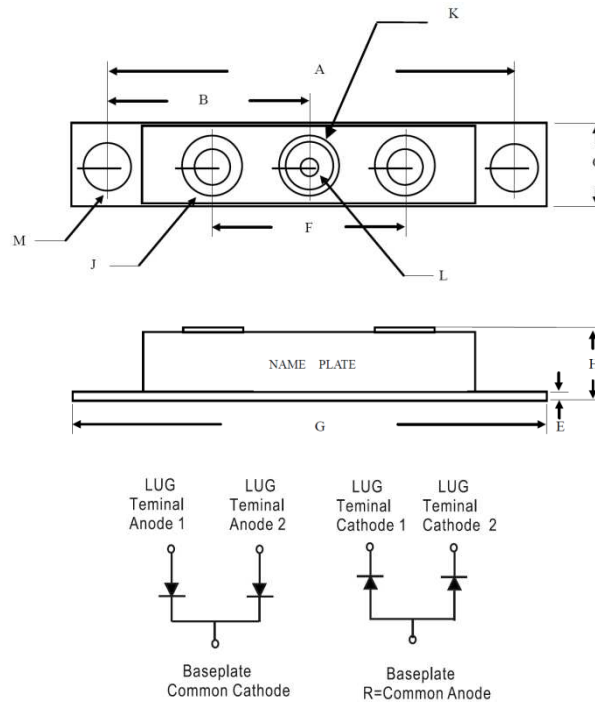
Recovery Time

Maximum reverse recovery time	T_{RR}	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$	110	150	nS
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Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.144	NOM	79.85	NOM
B	1.565	1.585	39.75	40.26
C	0.700	0.800	17.78	20.32
E	0.119	0.14	3.02	3.50
F	1.358	REF.	34.50	REF.
G	3.55	3.65	90.17	92.71
H	0.604	0.65	15.35	16.51
J	1/4-20 UNC FULL			
K	0.380	0.410	9.65	10.41
L	0.185	0.195	4.70	4.95
M	0.275	0.295	6.99	7.49