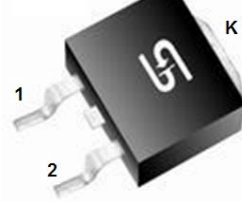
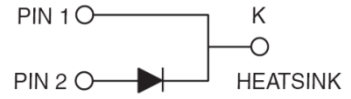


- High surge current capability
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



### TO-263AB (D<sup>2</sup>PAK)



### MECHANICAL DATA

**Case:** TO-263AB (D<sup>2</sup>PAK)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

**Polarity:** As marked

**Weight:** 1.37 g (approximately)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	MBRS	MBRS	MBRS	MBRS	MBRS	MBRS	
		1635	1645	1650	1660	1690	161	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	35	45	50	60	90	10	
Maximum RMS voltage	V <sub>RMS</sub>	24	31	35	42	63	70	
Maximum DC blocking voltage	V <sub>DC</sub>	35	45	50	60	90	10	
Maximum average forward rectified current	I <sub>F(AV)</sub>	16						
Peak repetitive forward current (Rated VR, Square wave, 20KHz)	I <sub>FRM</sub>	32						
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150						
Peak repetitive reverse surge Current (Note 1)	I <sub>RRM</sub>	1			0.5			
Maximum instantaneous forward voltage (Note 2) I <sub>F</sub> =16A, T <sub>J</sub> =25°C I <sub>F</sub> =16A, T <sub>J</sub> =125°C	V <sub>F</sub>	0.63 0.57		0.75 0.65		0.85 0.82		
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	0.5				0.3		
		15		10		7.5		
Typical thermal resistance	R <sub>θJC</sub>	1.5						
Operating junction temperature range	T <sub>J</sub>	- 55 to +150						
Storage temperature range	T <sub>STG</sub>	- 55 to +175						

Note 1: 2.0µs Pulse Width, f=1.0KHz

Note 2: Pulse Test : 300µs Pulse Width, 1% Duty Cycle

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EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESC
MBRS1660 RN	MBRS1660		RN		
MBRS1660 RNG	MBRS1660		RN	G	Green
MBRS1660HRN	MBRS1660	H	RN		AEC-Q

## RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

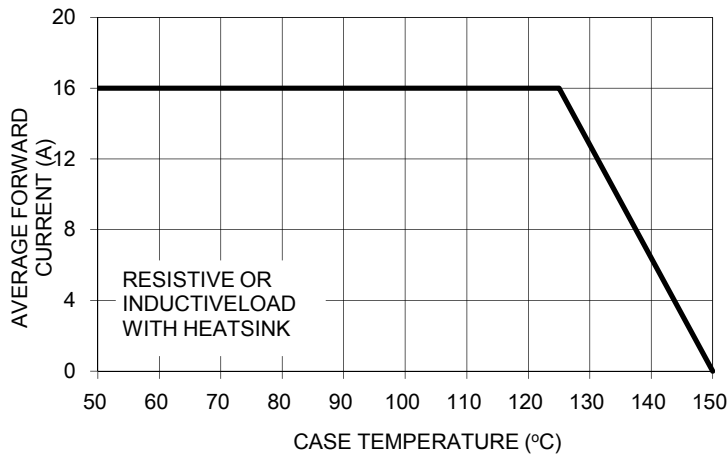


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD CURRENT

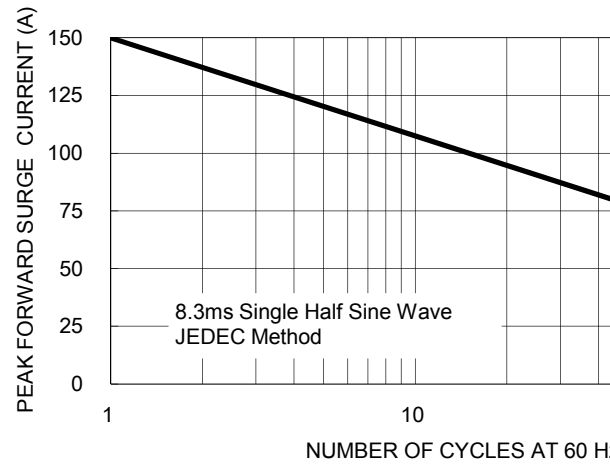


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

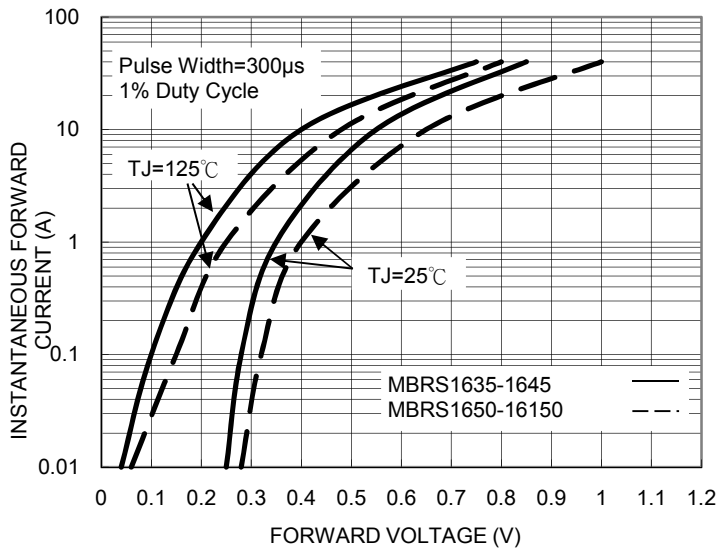
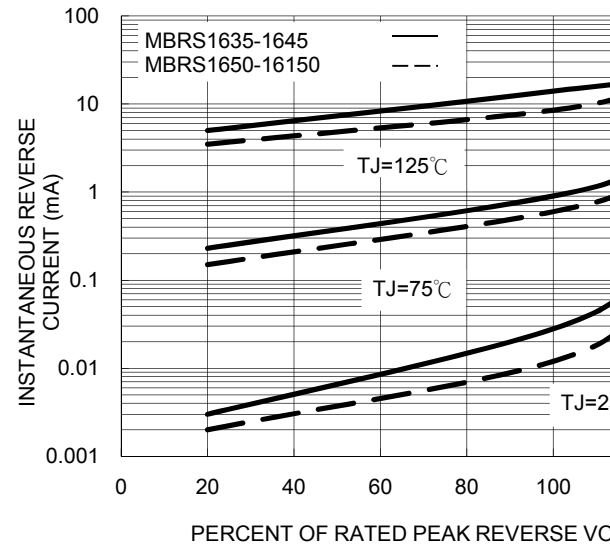
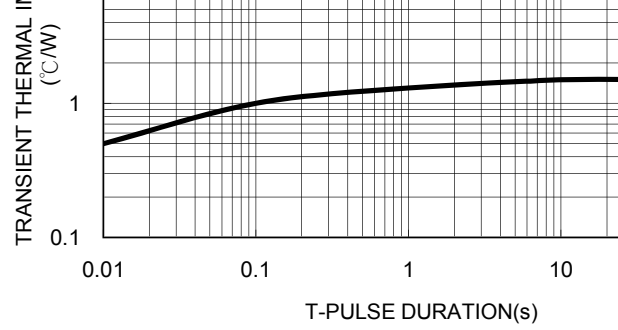
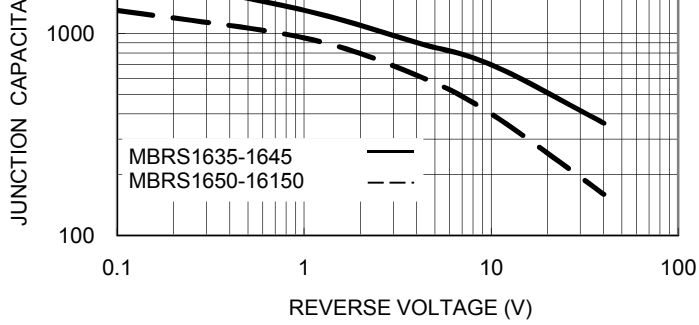
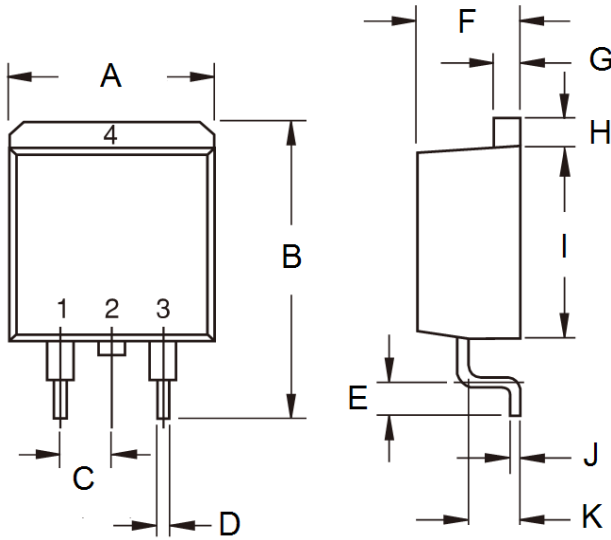


FIG. 4 TYPICAL REVERSE CHARACTERISTICS



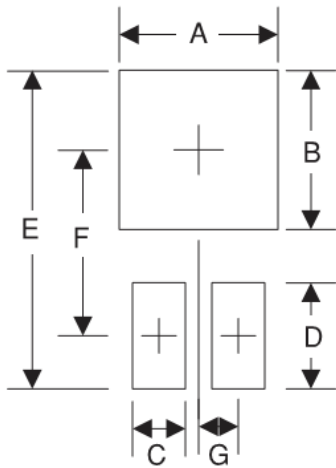


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	-	10.5	-	0.413
B	14.60	15.88	0.575	0.625
C	2.41	2.67	0.095	0.105
D	0.68	0.94	0.027	0.037
E	2.29	2.79	0.090	0.110
F	4.44	4.70	0.175	0.185
G	1.14	1.40	0.045	0.055
H	1.14	1.40	0.045	0.055
I	8.25	9.25	0.325	0.365
J	0.36	0.53	0.014	0.021
K	2.03	2.79	0.080	0.110

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	10.8	0.425
B	8.3	0.327
C	1.1	0.043
D	3.5	0.138
E	16.9	0.665
F	9.5	0.374
G	2.5	0.098

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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