

Pb Free Plating Product

S16ASD2 thru S16MSD2



16.0 Amperes Surface Mount Dual Series Connection General Purpose Rectifiers

Features

- * **Avalanche energy rated(100% guarantee)**
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

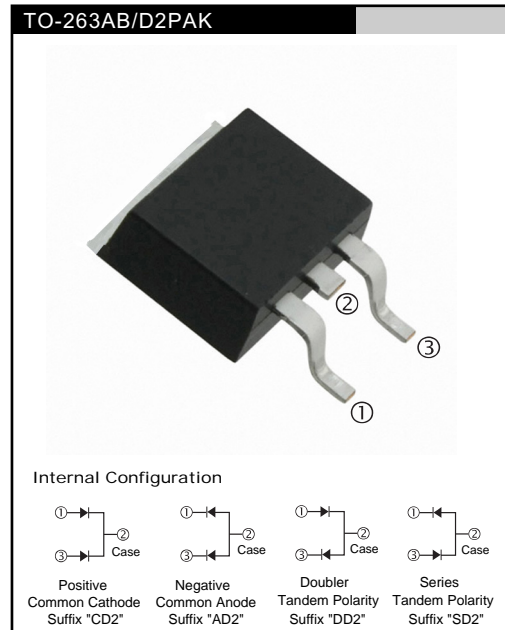
Application

- * PhotoVoltaic BY-PASS DIODE
- * PhotoVoltaic High-amperage Combiner Boxes
- * Alternator(Automotive Wireharness/Capacitor Bank)

Mechanical Data

- * Case: Surface Mount TO-220(SMD/SMT TO-220)
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-202 method 208
- * Polarity: As marked on diode body
- * Mounting position: Any
- * Weight: 2.2 gram approximately

TO-263AB/D2PAK



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

PARAMETER	SYMBOL	S16A SD2	S16B SD2	S16D SD2	S16G SD2	S16J SD2	S16K SD2	S16M SD2	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	16							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150							A
Maximum instantaneous forward voltage (Note 1) @ 8 A	V _F	1.1							V
Maximum reverse current @ rated V _R	I _R	10 250							μA
Typical junction capacitance (Note 2)	C _J	50							pF
Typical thermal resistance	R _{θJC}	1.5							°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

Note 2: Measured at 1 MHz and applied reverse voltage of 4.0 V DC.

RATINGS AND CHARACTERISTICS CURVES

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

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

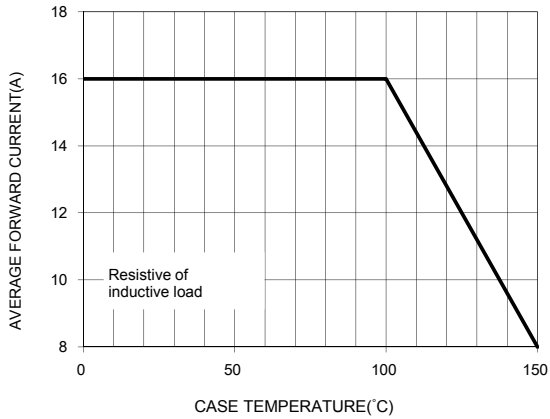


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

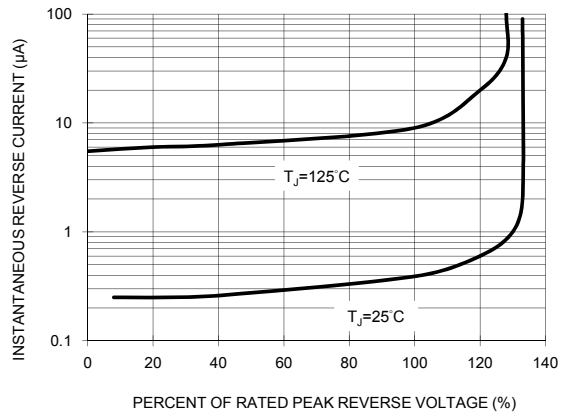


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

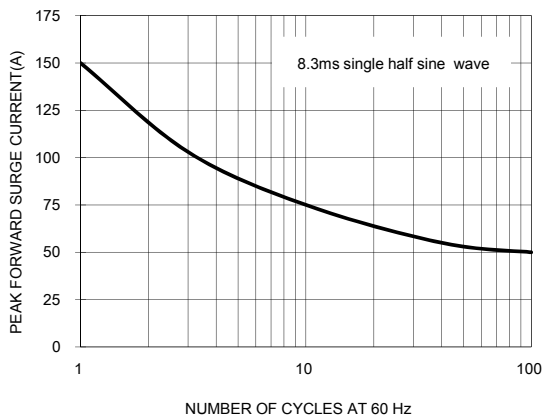


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

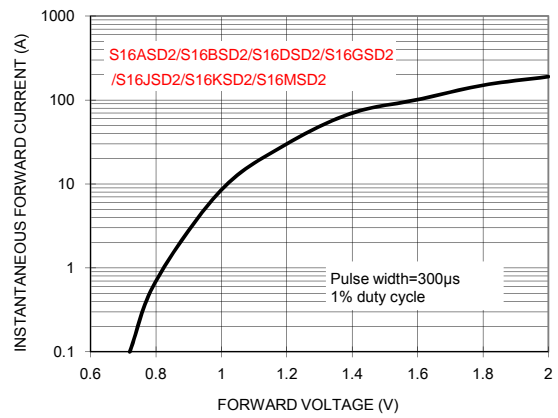
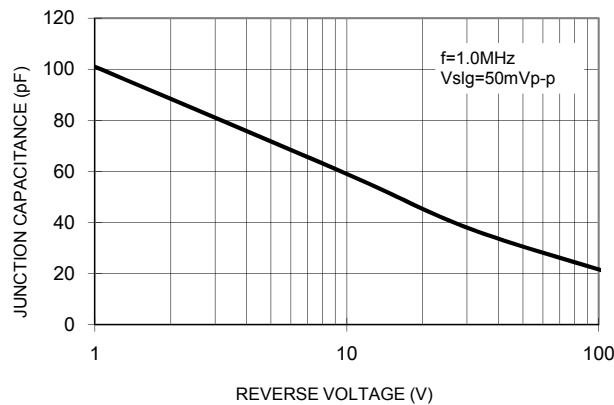
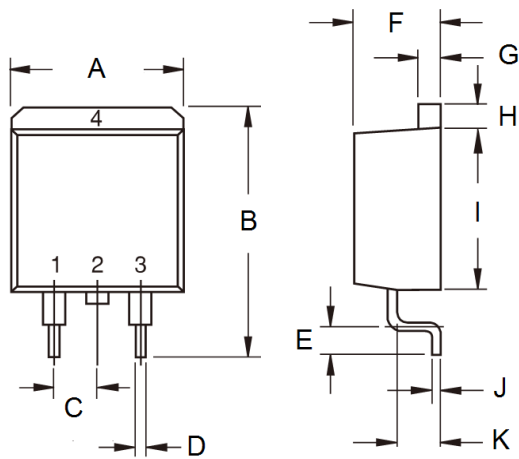


FIG. 5 TYPICAL JUNCTION CAPACITANCE



TO-263AB/D2PAK Package Outline Dimensions:

TO-263/D2PAK PACKAGE OUTLINE



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	0.364
J	0.36	0.53	0.014	0.021
K	2.03	2.79	0.080	0.110